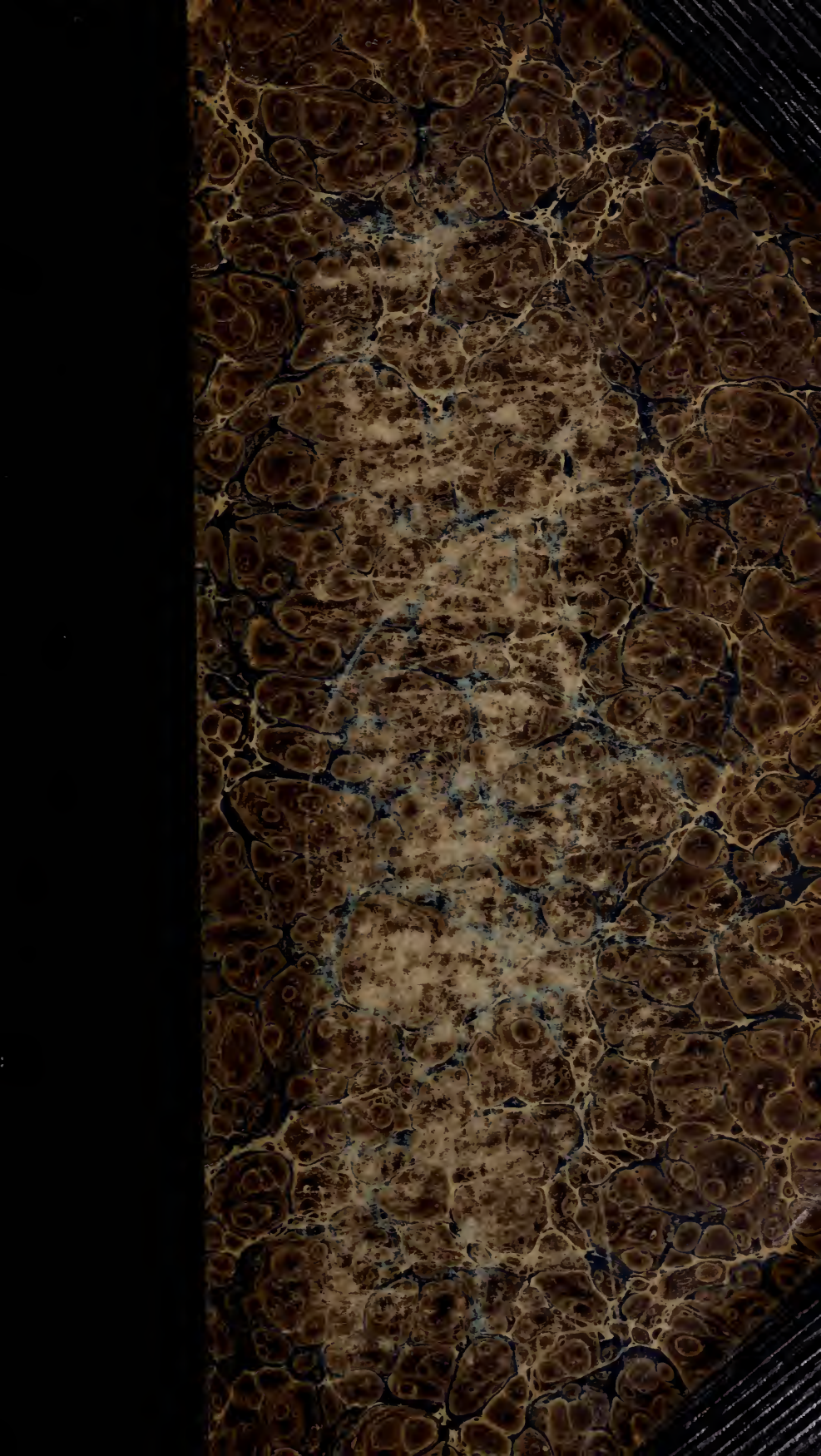




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NO. 1.

ORIGINAL COMMUNICATIONS.

The Fan System of Heating, Ventilating and Air Supply of Certain Buffalo Schools.

By HENRY REED HOPKINS, M. D., Buffalo, N.Y.

THE public schools of Buffalo present to the student of hygiene many interesting topics for consideration. This is true with greater particularity of the systems of heating and ventilation in use, for here we may observe instances of the gravity, the vacuum, the plenum systems, and in many instances combinations of two of these systems. Here we may observe that the well known principle, that where there are numerous and diverse treatments in use for a given disease, the ideal treatment has yet to be discovered, seems to apply to the problem of school ventilation.

In this important subject, touching the health and future usefulness of thousands of our children, during the more susceptible period of their lives, the law of the survival of the fittest, has yet to pick the winner, the ideal system of heating, ventilating, and air supply. The system having at once the highest marks in economy, simplicity, adaptability and efficiency, has yet to come, and to show that it has come by displacing all others.

The fan system of ventilation rests upon the well known fact that air is a fluid which, with the use of the proper mechanical device, may be lifted as water is lifted from the bottom of the well; or blown through an air shaft, as water is forced through a hose to put out a fire, or to sprinkle the flowers upon the lawn. The fan system is found at work after these two orders—the vacuum, the fan in the attic, lifting the foul air from the rooms below, and the plenum—the fan in the basement, forcing air into

the rooms above, heating these rooms, displacing their foul air by an equal volume of warm, pure air, thereby keeping up a constant state of perfect ventilation and air supply.

The vacuum system, the fan in the attic, is at once the simpler and more modest in its undertaking, aims only to empty the rooms of foul air, and assumes no responsibility for heating and air supply; has a single purpose—ventilation. Its mechanism includes a revolving fan in an air chamber in the attic. This air chamber is connected on one side by a system of foul air shafts with the several rooms of the building, and on the other side opens through the roof to the outer air. The work of the fan is to raise the air from the rooms below and drive it out of doors through the roof.

The plenum system, the fan in the basement is more ambitious of purpose and correspondingly complex and complicated of mechanism. It assumes the responsibility of heating, ventilating, and air supply; a matter of comfort, a question of health, and the necessity of life. The fan in the basement is exposed on one side to the outer air, and choice may be exercised as to the source of air, it may come from a hole in the ground or it may be taken from the bottom of a tall air shaft, the top of which is above the line of ground air or dust contamination. However taken, when once taken the plenum system assumes entire control of the air supply for the building.

All the air for all the occupants is seized, directed, screened from dust, warmed, and when required moistened and distributed according to their several necessities to the different rooms; equally diffused to all parts of these rooms giving in exact and generous allowance, warmth, ventilation, and air supply to each and every occupant; and having done all this, still under the direction and control of the fan is gathered by the various outlets for that purpose made and provided and driven up through the foul air shafts, through the several stories, through the attic, through the roof to the open air beyond.

More than thirty Buffalo schools are fitted with this plenum fan system. Some of these have been in use for more than ten years, and the cost of the apparatus is near \$250,000.

It is the purpose of this paper to inquire how this system is performing—what part of its undertaking is being fulfilled.

Since 1896 the Buffalo School Association, through its visiting committee, a committee including many of our most enthusiastic and enterprising medical men, has been engaged in study-

ing the sanitary condition of our schools. The reports of this association called the attention of the public to the fact, that in a large majority of our schools the ventilation was most unsatisfactory.

The Board of School Examiners also took up the investigation and soon reached the conclusion quite in harmony with that of the School Association,—an interesting and singular fact, inasmuch as the pioneer body is a self-formed and self-invited body, and the former is regularly appointed and salaried and withal charged with just such responsibility. As a result of this agitation against the nonventilated state of the class-rooms of our schools, the health department ordered that an examination into the facts of the case be made by our city chemist. Such examination was made in the winters of 1900 and 1901, and the reports are now on file in the health department. From these reports the facts of this paper are extracted.

Before taking up the pertinent facts of these reports, it seems worth observation that the first information which the city had as to the working of its school ventilation, was the reports of the city chemist, made by the order of the health department. Some \$250,000 had been invested in a most complicated and artificial mechanism, which presumed to heat, ventilate and keep supplied with breathing air, the class rooms of more than thirty of our public schools, and yet there was not on file in any of our public offices, a record of a test of this mechanism, whereby proof was made as to how the important work was being performed. Contracts contained specifications relating to the nature and amount of work the mechanism was expected to perform, but tests and records of tests, showing how near the work approached the specifications were not to be found. The significance of this observation rests upon the fact that to those engaged in school work, teachers and pupils alike, heating is a matter of comfort, ventilation essential to health, and air supply the prime necessity of life—and that the mechanism in question presumed to furnish all of these.

During the winter of 1900, the city chemist examined and reported upon the air of the class rooms of schools Nos. 1, 12, 18, 37, 40, 56 and 57, all of which have the fan system, the fan being in the basement. In these examinations measurements and observations and tests of various kinds were made, all looking in the direction of testing the efficiency of the ventilation and air supply. Of these tests the more crucial is the observation of

the amount of carbon dioxide present in the air of the class rooms, inasmuch as this respiratory product may safely be taken as the measure of the air borne excrement, the organic matter of human origin, the poison of rooms of human occupancy, to be rid of which ventilation is demanded.

The following are the amounts of carbon dioxide found in 10,000 volumes of air of the different rooms of the several schools: School No. 1, lowest, 7.2, the highest, 28.2—average of school, 18.53. No. 12, lowest, 23.9; highest, 47—average of school, 30.86. No. 18, lowest, 12.6; highest, 21.5—average of school, 16. No. 37, lowest, 17.3; highest, 44—average of school 27.23. No. 40, lowest, 6.4, highest, 10.7—average of school, 8.65. No. 56, lowest, 5.4, highest, 11.2—average of school 9.4. No. 57, lowest, 4.6, highest, 9.99—average of school, 8.20. Average for this group of seven schools, 16.98.

There were examined in these seven schools, forty-two rooms and of these rooms, two only were found to be ventilated and forty not ventilated. This is upon the standard of six parts of carbon dioxide in 10,000 volumes of air, as the maximum limit of permissible impurity.

In the winter of 1901, the city chemist examined the air of the following schools, Nos. 1, 12, 16, 18, 19, 37, 45 and 56. These with the work of the previous winter, as given above make a total of 196 rooms examined, of which number 31 were found to be ventilated and 165 were found not ventilated. All of these schools have the fan system of ventilation and all save No. 45 have the so-called plenum system—the fan in the basement.

If this work of the city chemist had done no more than to demonstrate the degree of nonventilation of the schools examined, it would even then have more than justified the judgment of the health department in ordering the work.

Fortunately the facts revealed by the examination of the winter of 1900 did but increase the desire of the health department for still further knowledge as to the atmospheric conditions of the school rooms; as to the rate of performance of the various parts of the mechanism for ventilation and air supply.

For instance, in his first winter examinations the city chemist had been content to measure the amount of air delivered to the various class rooms at the air inlets, but made no observations as to the work done by the ventilating apparatus proper, the outlets and their related foul air shafts. The blank directed by the health department for the work of 1901, contained columns for

measurements of air movements at both inlets and outlets and the facts thereby determined seem of considerable importance, and possibly throw light upon the reason why the deplorable excess of carbon dioxide was present in so many rooms.

Before proceeding to the consideration of the amounts of air in circulation in our school rooms, it may not be out of place to recall briefly the facts and principles involved in the process of ventilation.

The process of breathing seems to be incessantly and continuously necessary for the maintenance of human life, and that for two reasons the individual must have about so many meals of oxygen to the minute, and is under the equally imperative necessity of exhaling such a volume of carbon dioxide and other respiratory excrements as to make the suspension of respiratory exhalation just as painful, dangerous and impossible as the suspension of inhalation. And further, respiratory carbon dioxide, and respiratory excrement, have the same chemistry outside of the lungs as within the lungs, and just as a man dies in a few moments if he may not breath out these poisons, so a room occupied by human beings becomes a place of discomfort, disease, and death or it breathes, inhales and exhales air, as incessantly and continuously as its human occupants, and in amounts determined by its size and their numbers.

This process of breathing a room, inhaling fresh air, and exhaling carbon dioxide and respiratory excrement, we call ventilation; and the amount of fresh air which the room must take in a minute a person, and the amount of foul air the room must extrude a minute a person, is determined by the average number of respirations of human beings a minute, the average cubic capacity of the human lungs and the toxic power of expired air. Scientific men have demonstrated that 3,000 cubic feet of air a person an hour is required in order that the respiratory food of a room may be sufficient to maintain comfort and health, and also in order that the toxic products of human respiration may not exceed the limit set by competent authority at 6 parts of carbon dioxide in 10,000 parts of air—the limit of permissible impurity.

Let us now see what the city chemist found to be the breathing capacity and breath record of the class rooms of our schools which breathe by the fan system. Attention is first arrested by the want of uniformity in the amounts of air received in the different rooms of the various schools and also in the different rooms of the same school. Experience has apparently taught

our school builders that class rooms should be of about a given size, for they are generally found to have the same floor space, the same cubic contents and provide seats for the same number of pupils. Theoretically, rooms of the same cubic contents occupied by the same number of pupils and teachers should receive equal quantities of air, and have equal amounts of ventilation, but the facts disclosed by the city chemist demonstrated that inequality in air service at both inlets and outlets was the well nigh invariable rule. Air measurements at School No. 1, were made in 18 different rooms and the variation of the amounts inspired, the inlets was from 2158, the best room, to 1950, the next best, then to 1610, then to 1451, and so on down to the room having the poorer service of the school, with only 572, these several figures representing cubic feet of air a pupil an hour. At No. 18 of 17 rooms examined, the better rooms had respectively 2944, 2436, and 1800 and after this manner down to the bottom of the list, where we note 963 and 852 respectively.

This lack of uniformity appears in the work of expiration, the outlets, and is the rule of every school examined. Comment seems unnecessary.

Let us now observe the amounts of air entering the various rooms and see how they compare with the standard necessary for the preservation of health. This we take to be 3,000 cubic feet an hour a person and we find that in general and in particular the air supply is far below the standard. The better room of No. 1 has but .71 of standard, and the poorer room but .19. The average shortage of the 18 rooms of this school being .65. At No. 18 the better room shows .97 of standard and the poorer room .28. The average shortage of the 17 rooms of this school is .53. The above calculations relate to inspiration to inlet work only; when we look at expiration, outlet work, the showing is still worse. The better outlet at No. 1 gave .49 and the poorer outlet gave .16. At No. 18, the better outlet gave .61, and the poorer outlet gave .27. Taking the work at inlets and outlets we find in School No. 1, the fan ventilation ranges from .52 to .18 with an average for the school of .35. In No. 18, the fan ventilation ranges from .63 to .31, with an average of .47. The average for the two schools being .41. Again comment seems unnecessary.

A most important difference between theory and fact is to be noted in the nonrelation of inlet work to outlet work. The boast of the promoters of the fan system is its uniformity of per-

formance under all conditions of wind and weather, and the theory is that the air which enters the inlet diffuses equally and universally throughout all parts of the room, warming, ventilating and furnishing breath to all the occupants in equal measure, and having done all this, then leaves the room by the outlets as foul air to make room for an equal volume of fresh air and this is incessant and continuous.

The inference is that the only force causing movement of air through the outlets is the force of the fan, and that there would be a constant relation between the amount of air entering by the inlet and leaving by the outlet and that the measure of the one would be the measure of the other. So generally has this fallacy been accepted even by men who should have known better that we find the city chemist taking it for granted, and doing his first winter's work without measuring or reporting upon the work of a single outlet. This important oversight having been corrected by the health department the work of the following year gives the required information.

The facts are, that the promises of the promoters of the fan system are not performed—that the amount of air going out at the outlet is not the same as that coming in by the inlet and practically speaking bears no relation to it. This conclusion is reached by tabulating the observations of the city chemist upon the various schools after the following manner.

The work of the inlets and outlets are placed in parallel columns from the higher to the lower. Theoretically, this should bring the inlets and outlets of the same room opposite or nearly opposite each other. That lines connecting the inlets and outlets of the same room should be horizontal or nearly horizontal.

The fact is that in 141 rooms of 7 schools, the lines are horizontal, as theoretically all should be, in 11 cases; the lines run down, as escape of air through crevices would permit, in 68 instances; and the lines run up from lower to higher in absolute defiance of the theory in 62 cases.

Comment upon these facts will be made in conclusion.

This seems to be the place to invite attention to the readiness of testing the work of the fan system of ventilation and air supply. In the vacuum system, the fan in the attic, the test has simply to show how much air is leaving the rooms by the outlets. It is plain that the ventilation can never be greater than the amount of air properly diffused would cause, and this should be at least 3,000 a person, an hour.

The efficiency of diffusion* may be judged by the number and location of outlets, check upon the theory being made from time to time by observations upon the presence of carbon dioxide. The so-called plenum system requires no more complicated apparatus for its testing, but more measurements, there being at least one inlet and one outlet for each room and standard requirement gives the figure for a room at 6,000 cubic feet an hour a pupil. Here again it may be remarked, that the ventilation of a given room by the so-called plenum system can never be more than the sum of the work shown at the inlet and outlet, but may easily be less by reason of faulty location of the inlets and outlets. Any person able to tell the time of the day by the watch may use the anemometer and therewith make critical observations as to how near the work of the fan system approaches the standard. This seems of importance for the reason that the observations of the amount of carbon dioxide may only be accurately made by a practical and expert chemist; that under ordinary circumstances such observations require much time, complicated apparatus and considerable expense, whereas the air measurements require but a moment's use of a very simple instrument, the standardised anemometer.

Another interesting fact to be found in the city chemists reports is that of the considerable circulation into and out from the average class room after all possible pains have been taken to present such air movements. At No. 1, 5 inlets gave a volume of 12,053, while the outlets of these rooms showed only 6.002; at No. 16, 5 inlets gave a reading of 10,928, and the corresponding outlets, 5,609; at No. 18, the inlets of 5 rooms gave 15,892 and the outlets of these 8,569; at No. 19, the inlets of 5 rooms gave 9,774, and the outlets of these 4,131; at No. 56 the inlets of 5 rooms gave 10,733, and their outlets, 3,638. We find then as the measure of the porosity of the rooms of these schools and also as the nonrelation of inlets to outlets, that at No. 1, .49; at No. 16, .51; at No. 18, .53; at No. 19, .43; at No. 56, .33, only, of the inlet air reaches the outlets; and further that the work of the outlets is respectively .51, .49, .47 and .67 below the inlets.

Study of the tabulated work of the inlets and outlets of these schools gives the impression that the force acting upon and causing the air flow through the outlets is more uniform in its action, less liable to vagary than that governing the inlet flow. At No. 19 the five inlets having the lesser flow had a total of 5,565, and

the outlet, of these rooms a total of 4,478. While a medium 5 inlets had a total of 8,522 and the outlets of these gave 3,664.

It will be seen by comparing these two groups of rooms in the same school, that while the inlet work rose 2,957, the outlet work fell off 814. At No. 56 the 5 inlets doing the better work gave a total of 11,095 and the outlets of these a total of 4,177; while 5 medium inlets gave a total of 9,412 and their outlets a total of 4,130, the difference in the inlets being 1,683 and of the outlets 47. The significance of this may appear later.

The study of the inlet and outlet work of the rooms found by the city chemist to have good ventilation furnishes food for thought. This is a total of 21 rooms, made up as follows: No. 1, 8 rooms; No. 12, 3 rooms; No. 16, 6 rooms; No. 18, 2 rooms, and No. 37, 2 rooms. In not one of these rooms is there standard inlet and outlet work and the average of the entire group shows, that even in case the fan should have credit for the circulation through both inlets and outlets, it would then be credited with only .47 of standard; the fact being that we are forced to conclude that in case it is necessary for perfect ventilation for 3,000 cubic feet of air a pupil, an hour, to enter and leave a room, then in the case of these rooms .53 of that air entered and left through other routes than the inlets and outlets.

It would seem that from this we are able to appreciate the significance and importance of the porosity—the accidental circulation of air through the class-rooms of our schools that are supposed to breathe by the fan system, and yet so deeply has the pseudo-scientific thought of the fan system corrupted the minds of our people, that a most intelligent medical man in discussing this question recently, seriously advised that rubber weather strips be applied to our windows in order to force the air to leave the room through the outlets.

During the last winter our city chemist and assistant bacteriologist visited the town of South Evanston, for the purpose of testing the air of a school said to have a simple and efficient system of ventilation.

This system, known in the trade as the Dickson system, is a gravity system that depends upon the law of the fluidity of air, that warm air is lighter than cold air, and in a flue or chimney will rise and continue to rise so long as the flue or chimney remains connected at its base with the outer cold air, and retains its power to warm that cold air. The Evanston school is built along the same general plan as our schools. The class rooms

have about the same floor space and cubic contents and accommodate about the same number of pupils. The system of heating and ventilating is not very unlike the fan system, save that it is more simple. Steam coils are arranged in vertical flues, supplied with fresh air from below; the air thus warmed is delivered to the class rooms through inlet openings, one for each room, about eight feet above the floor.

The ventilator flues run in the same walls side by side with the inlet flues and are heated by them. The outlet flues are vertical, are chimney flues and run through the attic, through the roof and for some 8 or 10 feet above the roof. The inlet openings are of the same size for all of the rooms and are 25 x 28 inches. The outlet openings vary slightly in the different rooms and are 20 x 25 inches to 16 x 25 inches. The inlets and outlets are on the same wall surface, the outlet almost directly under the inlet and just above the floor.

A comparison of the air movements through the outlet flues of the Evanston and certain Buffalo Schools may be of interest. No. 45 of our city has the attic fan system and the sum of the outlet work of 5 rooms having the better records is 1,770. The outlets of 5 rooms having the poorer work gave 507. No. 1 of Buffalo has the fan in the basement. Its better 5 outlets give 6,194 and its poorer 5 outlets give 3,700. No. 18 Buffalo has the fan in the basement; its better 5 outlets give 7,488; and its poorer 5 outlets give 4,444. Evanston's better 5 outlets give 20,697; and its poorer 5 outlets give 14,226.

The Evanston system does not seem to be quite an ideal system. There seems to be doubts that a room of the dimensions of 24 x 32 feet or nearly that may be ventilated by a single outlet, and there is also chance for argument as to what the relation between the breathing line and the outlet opening, whether above or below or how much; but upon the question of taking air out of rooms through flues and that in standard quantities, the observations at Evanston indicate that gravity will do it.

Before concluding let us look for a moment for the reason why the out flues at Evanston seem so much more capable than those of Buffalo. And our first observation is that the reason is not from superiority of size, for those of Evanston have an area of 450 square inches, while those of No. 16 Buffalo have an area of 720 square inches. Neither is the advantage in location and direction, for in both cases the flues are in inside walls and are vertical and free from angles.

At No. 16 the average of 10 outlets, 5 better and 5 poorer, is 61,260 cubic feet an hour, sufficient to provide ventilation for 20 pupils. At Evanston, the average of 10 outlets, 5 better and 5 poorer, is 139,600 cubic feet an hour, enough for 46 pupils.

The flues at No. 16 were built under the fallacy that the plenum chamber would drive the air through them whether or no; they have a rough, careless, unfinished inside, they terminate in a cold attic, with no special connection with the outer air, only the general connection of a globe ventilator, and they have no special provision for keeping them warm, save as they are warmed by the air moving through them, whereby just so much levity is taken out of the air they are supposed to raise. Having no aid from the fan in the basement and not being expected to work by their own powers, having their natural powers seriously impaired by the cold attic, it is no wonder that their performance is less than half of their theoretical value, less than half those of Evanston, which although much smaller in opening were built to draw.

A careful consideration of the foregoing facts seems to invite the following conclusions:

1. The fan system of the Buffalo schools is a clumsy heating system, lacking in adaptability to different rooms and too liable to be either inadequate or wasteful. This is not of vital importance, as heating is only a matter of comfort and convenience.

2. The fan system of ventilation is a failure in inlet work, a more pronounced failure in outlet work, a failure in diffusion, a failure in displacement, a failure in the removal of air borne excrement, a failure in the removal of carbon dioxide; that it is not a plenum system, but a gravity system, there being no relation between the movement of air through the ventilators and the operation of the fan. That 141 different observations made in the rooms of 7 schools, showed not one instance of efficient ventilation as measured by motion of air at the outlets, and that in the tests of 196 different rooms of 9 schools, there was found 165 failures, as indicated by carbon-dioxide; and further, that in the rooms found to have adequate ventilation .53 of such ventilation was due to accidental causes—to the motion of air independent of either inlets or outlets. That this is a question of great importance inasmuch as the matter of ventilation of school rooms is not only one of comfort and convenience, but is essential to the preservation of health.

3. That the fan system is a demonstrated failure as an air supply, entirely lacking in uniformity and quantity and diffusion, as complete a failure in performance as it is absurd in principle, the surprise being that sane men would ever undertake to supplant and displace the simple method of natural air supply by anything so complicated and artificial as the fan system; remembering that to human beings air supply is at once a comfort and convenience and essential to health, and is also an instant, constant and immediate necessity to the maintenance of life.

4. That ideal school ventilation and air supply is a scientific question of absorbing interest, not alone because of the intricate questions of physics, chemistry, and physiology involved; but also in view of the fact that the tender, delicate and susceptible children of today, with their fearful liability to disease, liability to arrest of development of body, soul and spirit, are tomorrow the people.

That to our city the question is one of enormous financial and educational importance, because insufficient air supply and poor ventilation simply means, waste of effort and opportunity—teachers who may not teach and pupils who may not learn.

433 FRANKLIN STREET.

Prostatic Hypertrophy.¹

By MARSHALL CLINTON, M. D., Buffalo, N. Y.,

Attending surgeon, Erie County Hospital; assistant attending surgeon, Sisters' Hospital and Buffalo Children's Hospital; surgeon Pennsylvania R. R., etc.

THE object of this paper is to try and provoke a free discussion among the members and ascertain what ideas you have on the treatment and caring for patients of this kind, who present to you phases of this trouble that the hospital servitor does not see. You have the opportunity to watch patients from manhood to old age, to see a generation pass from the prime of life to senility, and among them must see prostatics who present many phases in the symptomatology of this complaint. What I particularly wish to find out from your experience is, how long a patient with an enlarged prostate will continue to use a catheter without developing a cystitis, and in cases in which it does develop how long before renal insufficiency asserts itself? How long after they present symptoms of a pyelonephritis do they sur-

1. Read before the Gross Medical Club, May 31, 1901.

vive? This last state is the one in which we generally see them in the hospital wards. In the writer's six years' hospital experience a good many cases have come under his observation, but no case has been under his care for six years. Hospital patients do not or can not give correct histories of these affections, even when they wish to; so it is to you we come to get an idea as to the length of time that usually elapses during the progress of the earlier stages. When, in your opinion, may we tell a patient that an operation is imperative; when, after signs of bladder weakness, will obstruction come on; and when after that will they have retention? This is one stage of the trouble when our patients present themselves, and are promptly scared away by the announcement that unless they submit to an operation they will get worse and die miserably.

The classification given us by Thompson of four divisions of chronic prostatic enlargement, is the one generally accepted by the authorities. To the practitioner, however, it matters little what type the chronic enlargement is; the symptom-pictures the patients present from the various types are the same. Probably no one ailment in all general surgery has so many sufferers between the ages of 50 and 75 as chronic prostatic hypertrophy. Unfortunately, the general surgeon sees these patients at a time when surgical skill will do little else than render easy a measured life, or push over the border line the tottering prostatic patient.

The symptomatology is familiar to us all. The forceless stream of urine, the dribbling at the end, the loss of that younger day bladder strength. Then the symptoms of beginning irritability at the neck of the bladder from congestion and later frequent urination from pouching at the neck and retention of part of the contents after each act. These symptoms become aggravated at night and the frequent urination is the symptom that usually points the patient's feet towards the physician's office. This symptom of frequent urination is due to a high specific gravity urine with a plus acid reaction being allowed to fall on an irritable prostatic urethra by the relaxed bladder neck during sleep.

With increasing enlargement comes difficulty in starting the stream. This symptom often portends more serious structural change in the prostate than frequent urination. In these cases where a large share of the irritable symptoms are left out there is a passive dilatation of the bladder wall and a constant backward pressure on the kidneys that results in kidney lesions out of

all proportions to the symptoms, as compared with other irritable cases.

Residual urine, whether small or great in amount, is of no importance, as it is simply the measure of the bladder capacity until it becomes refilled or a cystitis develops. Complete retention is rarely an early symptom, usually occurring late in the disease after some sexual, gastronomic, or climateric disturbance.

Diagnosis is so generally clear from the history and age of the patient, that we will usually complete it with a simple rectal palpation, which method tells us more than any other or all others.

Treatment.—Medically speaking, prostatic hypertrophy is as hopeless to treat as fibroid uterus, but there are drugs that may be used when the hypertrophy has produced symptoms of cystitis, and the like. The medical treatment of this condition is safe only when the patient is under the care of a physician who is on the alert for the early signs of an incompetent kidney, or the results of back pressure or infection. Many cases fortunately do go through this period with a mild degree of prostatic hypertrophy and discomfort without anything more than a careful watching and an occasional instrumental dilatation. Many a man has lost his life who has drifted along with an enlarged prostate without the careful supervision necessary to prolong his life until structural changes have taken place in his kidneys, from which he cannot recover and from which he dies.

Palliative measures consist in the use of the catheter, steel sounds, and deep urethral dilators. When the resistance to a catheter is slight, the density of the prostate through the rectal wall is moderate, amount of residual urine small, then dilatation will be of great benefit. Dilatation should be persisted in to the largest sized sound that can enter the membranous urethra. The constant use of the catheter is the commonest palliative measure and the most popular one up to the present. The dangers are sometimes misunderstood, and we hear this mode of procedure condemned when a large number of cases go through the prostatic age with very little inconvenience. If the catheter is to be used at all, its use should be begun early in the affection before any hyperemic changes have taken place in the urethra and bladder.

An uninjured urethra and healthy bladder wall is not a good medium for the growth of pathogenic bacteria, and a reasonable amount of cleanliness will avoid a cystitis. A patient should not be permitted to use the catheter until the bladder and urethra

has reached a normal state of resisting power. The rule in catheterising of once a day for three ounces of residual urine, and once for every additional two ounces is a good one. Continuous drainage by retained catheter is recommended by some and is a valuable palliative measure in cases of acute cystitis engrafted on an old atonic condition of the bladder.

In all our patients when catheterisation is easy, the amount of residual urine small, when there is no cystitis, and the obstruction is moderate, no operation should be thought of. All prostatics do not need operation and many of them go through this period of their lives with very little trouble. What we need, then, is some definite rule which will guide us in advising operation. Structural changes in the prostate per se are not enough to make operation imperative. Even with a very much hypertrophied middle lobe cystitis per se is not enough to require operation. Both together do not always give us the required warning. The way in which these patients die is either from uremia or sepsis. Sepsis from bladder and subsequent kidney infection or from a nephritis due to infection or back pressure on the ureters. To the urinary secretion, then, must we look as the imperative guide as to whether an operation is indicated or not. Given a case of progressive prostatic hypertrophy with cystitis amenable to treatment and no involvement of the kidneys, our advice would be, not to operate. Given the same case, however, with signs of an albuminuria, which is persistent and has casts in some profusion scattered through it, and our advice will be always to operate.

The terrible mortality of the earlier and some later operations devised to relieve this condition cannot be laid at the door of the operations themselves, but to the fact that operations are too often undertaken when the patient's condition precludes the possibility of a recovery.

How often have we seen a septic, uremic soaked, half dead patient sent into the hospital to be operated on for this condition? And how utterly hopeless these cases are. Many if not all of these poor patients could be spared to helpful useful lives if only at some past date proper advice of their attending physician had been carried out. Under ordinary precautions the model operation done on a man with healthy, properly functioning kidneys, should not have any mortality. When, however, any operation requiring an anesthetic is attempted on a patient in the former condition, we can readily see why we have

such a frightful mortality. At the first sign of beginning kidney degeneration—operate!

There have been a great many different methods of attempting radical cures of this affection and they all have their adherents. The literature on this subject is so vast that we will not attempt to review any but a small part of the various methods that have been suggested for the relief of this condition. Castration and vasectomy have not proven as efficacious as they were originally intended, and are only applicable in cases where there is no projection of the middle lobe of the prostate, the glands soft in feel, and the etiological factor largely sexual in its production. It may be tried in the earlier stage of prostatic enlargement for it should do no harm. Ligation of the internal iliacs is certainly as formidable an operation as prostatectomy. Bottini's operation has been abandoned by some operators as unsurgical and unsatisfactory. It is only suitable in a limited class of cases and is not one we would care to have as the radical operation. Prostatotomy by Bottini's method or any other is not a radical procedure though it was intended for such. Too large a per cent. are not cured—42.5 per cent. in 229 cases. Prostatotomy was the first of the operative procedures for the permanent relief of this condition, and is the parent of the modern and model operation—prostatectomy. Suprapubic cystotomy has been done a great deal, particularly for those cases associated with a great amount of cystitis, but is only a temporary operation at the best. I was forced to do one for a patient who was dying last summer from retention, as it was the only surgical procedure the relatives of the patient would consent to. He was not a case for operation and it was done to make his end easy and not with the idea of curing his pyelonephritis, which was killing him. It succeeded in as far as giving an outlet for the urine was concerned and was done under cocaine anesthesia. Could this patient have been given the benefit of an earlier operation he should have been alive and comfortable today.

Prostatectomy, or enucleation of the prostate is the model operation and has several minor variations for its accomplishment.

Parker Syme proposes to do a laparotomy, then a perineal cystotomy, and pushing the prostate and bladder into the perineal wound, enucleate without opening the bladder. Alexander's method is to keep outside the general peritoneal cavity with the suprapubic incision and carry it into the bladder. Then

a grooved staff is inserted into the bladder in the urethra and an incision carried in the middle line back to the apex of the prostate and into the membranous urethra. With the left hand in the bladder above and pressing the prostate into the perineal wound, the prostate is enucleated by the first finger of the right hand.

This has not been found a difficult procedure by the various operators who have been prevailed upon to try it, and I saw a large prostate with an enormous middle lobe enucleated in seven minutes by Dr. Paul Thorndyke, of Boston. This operation is still too new to have a very large series of cases on which to base statistics, but the twenty odd reported by Alexander show a lower death-rate and a higher per cent of complete cures than any other method so far. This seems reasonable when we consider it is the only procedure which completely removes the offending member.

Mansell Moullin says:

Thanks to the progress which has been made in the surgery of the prostate in the last few years, progress which only became possible when the true sexual character of the gland had been once more established, there is now no case of enlargement in which perfect relief cannot be obtained, provided only the secondary consequences which so often and so unnecessarily follow it, and which are due in the vast majority of cases to the careless use of catheters, have not allowed to work irreparable harm upon the walls of the bladder. In no department of surgery are the disastrous results of temporising and delay shown more clearly than in that which is concerned in the prostate.

We all realise the frequent difficulty of demonstrating to the patient the necessity of any operation, but if when a patient is carefully shown just what changes are going on, and what the results will be, if he is not under careful control, I feel sure that our operations will have a lower mortality, give more perfect results alike to the patient, physician, and surgeon, and save many a valued member of our communities to a helpful, useful, contented, old age.

466 FRANKLIN STREET.

INSOMNIA OF ALCOHOLISM.—Dr. D. R. Brown (*Trans. Seventh International Congress on the Abuse of Alcohol*) recommends for patients suffering with acute alcoholic delirium or alcoholic mania :

R Chloralamid.	1.0	(gr. xv.)
Hyoscin hydrobrom	0.0006	(gr. $\frac{1}{100}$.)

Some Thoughts, in Lighter Vein, on the Practice of Medicine From a Business Standpoint.¹

By DEVILLO W. HARRINGTON, M. D., Buffalo, N. Y.

IT OCCURRED to me, a few days since, that it was customary for the President of the Alumni Association, to deliver an address upon some medical topic, at the expiration of his term of office. I have listened to these addresses for nearly thirty years. They have been, without exception, both interesting and instructive. I find it particularly difficult to choose a subject that has not already been written up by those better able and with more time than I find at my disposal.

Our Alumni anniversaries are not so much to listen to dry papers upon medical topics, as to demonstrate our loyalty to our alma mater and to renew the friendships made when we were students.

I have chosen for the subject of my talk to you, Some thoughts in lighter vein on the practice of medicine from a business standpoint, or as Frank Lydston would say, "the commercial aspect of physics." I promise to take but a few moments of your time, and not to load you up with statistics, but simply to give a few ideas and facts that I have learned during the thirty years of my practice in this city.

Few doctors at the beginning of their professional career have any idea of business methods, most of them lack even a knowledge of rudimentary book-keeping. They are proverbially, "poor financiers." Few of them, upon reaching the age of sixty-four—the age at which this beneficent republic has decided that a man has outlived his usefulness—have accumulated enough to retire from practice. The amount accumulated often bears no relationship to the amount of work done. This is more often due to bad financiering, loose business methods, bad investments, puerile methods of book-keeping and making collections.

The iron clad rates for professional work, which emanated from our county societies, and of which the present generation of physicians knows very little, was a mistake from its very inception. Charges should be made in proportion to a man's means and income. It is inconsistent to charge a man whose income is \$10.00 a week, the same fees that you would charge a millionaire. By this I do not mean but that you are to devote just

1. Address by the retiring president at the meeting of the Alumni Association of the University of Buffalo, April 26, 1901.

as much time, and take just as good care of the poor, even those who are not able to pay anything, as of those who are able to pay large fees.

It is, perhaps, not necessary to warn doctors of the risks of investing their money in stock companies or syndicates, that offer as inducements large rates of interest. Do not be deluded into signing notes, even to accommodate patients. Be able to say "no" with a capital "N." Do not go on any one's bond, even when a representation is made to you that it is only a form and that you will not be liable. The last bond of this kind I signed was for a doctor; he was a curator in this college for many years. It cost me \$2,500. He is dead now and I hope and trust that he received sentence from a higher court. Live within your means, pay your bill, promptly, as you expect others to pay you.

A blue book was published in this city a few years ago, in which was given a list of those who did not pay for medical attendance. This work was enlarged in later years, until it included all classes of debtors, and I am sorry to say, that the number of doctors names, in this book of delinquents, outnumbered those in almost any other line of business.

Do not allow your office to be a lounging place, do not get on familiar terms with druggists. It is sometimes necessary to talk plainly to a druggist whom you have found substituting or dealing out your prescriptions to his friends. Do not get chummy with your patients. I was in a doctor's office, not long since, when a young man was ushered in, who said to the office boy, "Is the Doc. in?" "No," answered the boy, "but the doctor is." Make short calls. Long professional calls tend to gossip and revealing professional secrets, which is the most contemptible thing a doctor can do.

Most of you will remember the case of Dr. Playfair, who amused his wife by giving her the details in a case he had attended; she was indiscreet in repeating it and it cost him \$80,000 in the suit for slander which followed. He claimed this was due to the lack of fairplay on the part of some of his fellow practitioners.

It is the duty of every physician to recommend a patient to a specialist for any particular ailment, when he realises that they can receive better care than he is able to give them. It is the duty of a physician to consent to a consultation whenever the friends of the patient desire it. The honest physician never loses

anything by asking for a consultation. Making contracts with lodges and fraternal associations, for doing professional work for a stated sum should be discouraged. There is a great tendency to this line of work among the younger members of the profession.

Be honest with your patients. Be cheerful in the sick room without levity. Too many men, whom the Creator intended for undertakers, unfortunately drift into the medical profession. Do not give advice in family matters, particularly in settling differences which doctors sometimes see.

The young doctor who marries, hoping and expecting that it is going to increase his practice will be sadly disappointed. Mark Twain's advice to young men, to marry young and if necessary often does not apply to doctors. It seems wiser for a doctor to postpone his matrimonial venture until he has a home and sufficient income to support a wife in the way she has been accustomed to live.

The practice of attending ministers and their families without charge, seems hardly just; they are often better able to pay than very many of their parishioners. I was attending a minister a few weeks since when he informed me that he had prayed for me every night for more than twenty years; upon inquiry as to this especial act of kindness, he informed me that he prayed for all sinners. Do not connect yourself with the church simply for the purpose of getting business. Philip Brooks once said, that it took a brave man and an honest one to be a sceptic, but that any coward could be a hypocrite.

Always speak well, if at all, of your fellow practitioners. It is not wise to discuss or criticise homeopathy, osteopathy or the doctrines of christian science. These are the isms that thrive under prosecution. We all remember the beautiful old hymn, "Salvation is free, to you and me," and yet it costs more in this country to save souls than to save life and relieve suffering.

There is another and a brighter side to this picture of seemingly financial preferment. The Goddess of Justice, though fickle and capricious at times, is no respecter of persons, which accounts for the fact that there are more ministers in state prisons and penitentiaries than there are doctors. The young man who expects to get business by devoting a large part of his time to society is going to be sadly disappointed. Do not forget your office hours. Dr. White used to say, "take good care of your

office hours and your office hours will take care of you." Take a vacation each year. A man can do better and more satisfactory work who takes a proper amount of recreation. Dress properly and becomingly. In my younger days, I remember a doctor in this city, who was one of the consulting physicians of the Buffalo General Hospital, who always attended his office hours in his shirt sleeves. I met a young doctor last fall who was wearing a silk hat, bobtail coat and yellow shoes and who seemed to think he was the pink of perfection. Do not smoke during working hours. Sick people are particularly sensitive to bad odors, and it is to be hoped that no doctor will visit the sick-room smelling like a cigar factory. Do not confine your reading entirely to medical books. Speaking of medical books, it would be better for the profession and the world at large, if every medical book, written twenty years ago or more, could be burned.

Be considerate to the younger members of the profession. Remember that you were young once yourself. I remember being called some years ago, in consultation with one of the older members of the profession, who refused to meet me, giving as his reason, that he never consulted with a man younger than himself. I consider that I have been the gainer by having young men associated with me for the past twenty years. They have had opportunities for study in many branches of which we knew but little in my student days. Our knowledge of microscopy, at that time, consisted principally in being able to discover the last remittance from home and our knowledge of chemistry was little more than being able to mix drinks.

Patients are often ungrateful; those that we do the most for usually show the least gratitude and are the ones who change doctors without any excuse or explanation. In our dealing with patients, we soon learn that there is a limit to genius and ability, but there is no limit to human stupidity.

A doctor is expected to elevate and educate the masses to the proper understanding of the rules and regulations of health and hygiene, to teach, both by precept and example, temperance, honesty, charity and morality.

By following these rules it is to be hoped that the recording angel may drop a tear and blot out any short comings for each and every one of the 140,000 physicians in this country.

Charity by Proxy or Semi-Charity and Its Disastrous Effect Upon the Physician.

By MARCELL HARTWIG, M. D., Buffalo, N. Y.

REMOTA causa tollit effectus. If we desire to eradicate an evil we have to search for its foundation. The glamor about dispensary abuse will soon become reinforced with fog-horn rumbling. The time is drawing near when the medical profession will begin to realise how vitally it is being imposed upon by the hospital. The iniquity is growing daily. The physician is becoming the tool of the hospital instead of being its manager. If some people are desirous of aggrandisement and found a hospital, or if they are really charitable, they but need to wink, and like a mob of hungry wolves, a bunch of physicians are on hand and consider it an honor to be permitted to offer their services gratuitously, all in the more or less substantiated hope to obtain, indirectly, patients, fame and name. Few go for the scientific opportunities of the hospital. Very nice and laudable, how ready they offer their services to help the unfortunate fellow beings; very admirable how the founders give their means and energies for such honorable undertaking. The trumpets of the daily press sound their praises. But how does it look behind the curtain? The maintainance of the really poor is paid for by the city and county, while both lose the control.

The well-to-do receive special care and accommodation for ludicrously low pay. Any hotel would not maintain them for twice the price while they are in good health. Where does the charity thus go, *id est*, that part of the expense of the hospital which the generous givers, above and beyond the public assistance, furnish? To the pay patients. Who reaps the benefit? The attending physicians. The others remain in the cold. And doubly cold they have to suffer, inasmuch as at times they are forced to recommend to their patients for their best interests to seek the hospital, and here they lose their patients into the hands of others; at least very often.

Meanwhile, the attending physicians may displease the hospital managers. Bang! They are fired, perhaps after having done years of charitable work and just begun to reap the benefits of their assiduous labors. Are such conditions worthy of an

1. Address by the retiring president at the annual meeting of the Buffalo Academy of Medicine, June 11, 1901.

enlightened profession, which is certainly willing to do proportionately as much charity as the wealthy neighbors?

The development of medical science is making the hospital more and more a frequent requirement for the best management of patients, and thus grows the dissatisfaction of physicians, a regular *circulus vitiosus*.

But the patients suffer as well—not those in the hospital, but those outside of it. The loss of patients—transferred to the hospital and attended gratuitously—forced the physicians to demand bigger fees. The hospital physicians, doing a lot of work gratuitously, demand for their prestige still higher prices, and as every patient cannot go to a hospital, the middle classes with limited incomes are in a sore plight to find decent physicians for fair prices. Thus, even in this field, the trend of the times to develop two classes—millionaires and paupers—is fostered.

Another way the hospital aids this economic movement lies in the wholesale agreement, tacit or actual, between the hospital and the large employers. Where the employer is obliged to take care of his workman, accidentally hurt in employ, he finds it much cheaper to send him to the hospital than to have him attended to at home. And, where the employer is in the board of hospital governors, he has a good chance to find a free bed. At all events, he has partial charity extended to a man, where otherwise he would be obliged to pay in full. He does not pay the physician; the hospital no taxes. Where is the remedy? I see only one, and that is that the hospital must be owned by the physicians, themselves, in common. Every one must have the same privileges; every patient the choice of his doctor. Such ideal condition cannot be brought about except every physician would be part owner of the hospital, with equal voice to every other. But, how should such condition be brought about, as every physician is not equally rich, and the owner of a lot of shares would soon oust the others? I see only one way. A new form of share-companies would have to be legalised, where every owner of one share would have as much voice as one of a hundred shares, though profits, if any, would have to remain proportionate to shares. Such new share companies and their legal status should be discussed by the lawyers. For my part, I add that such a form of share company is, to my view, one of the few sound means to counteract the dangerous tendency of the times, to wipe out the middle classes and construct a plutocratic oligarchy. If a man's

voice in the government of the state is as good as another's, why should such a thing be impossible in business.

We physicians are in more than one sense laboring men and with the enlarged field of vision at our command, with our intimate knowledge of human affairs among the lowly as amongst the affluent, with our proverbial warm feeling and mostly genuine sympathy with the afflicted, ought to march in the vanguard when the means are considered to do the greatest good to the greatest number; and as one of those means I propose, the introduction and labor for the construction of the above mentioned share-companies. By thus benefiting ourselves we may yet form the example for a new means of benefiting the masses. At all events, I thought of not being able to proffer a more worthy object for an animated discussion to-night.

Salus publica suprema lex esto.

88½ MAIN STREET.

Gross Anatomy—A Brief Resume of the Anatomy of the Kidneys.

A LECTURE DELIVERED TO THE CLASS OF NURSES AT BUFFALO HOSPITAL OF THE SISTERS OF CHARITY, APRIL, 1901.

By BYRON H. DAGGETT, M. D., Buffalo, N. Y.

THE kidneys are symmetrical organs, located in the lumbar region, behind the peritoneum, invested by a fibrous coat, and surrounded by some adipose tissue.

They extend from about the 11th or 12th rib downward toward the crest of the ileum. They are bean-shaped, with a central concavity, the deep portion of which is called the hilum. They weigh from 4 to 6 ounces.

The fibrous coat extends into the hilum, lines the pelvis and covers the calices and blood-vessels, which enter the kidney at this point. The cavity at the hilum is formed by the dilated origin or funnel of the ureter and is called the pelvis. The kidney is composed of two distinctly marked portions, called the cortical and medullary divisions. The cortical substance is reddish and granular, and one-sixteenth of an inch in thickness. It is the outer portion of the organ. The surface of the kidney is lobulated by the arrangement of the superficial vessels. The medullary, or inner portion is firmer and darker red in color than

the cortical and is made up of tubules, and is sometimes called the tubular portion. The kidney is made up of investing membrane, tubules, bloodvessels, lymphatics, nerves and connective tissue; a complex arrangement of structure, whose function is to separate the urine from the blood.

The physiological and minute anatomy of the kidney is exceedingly complex and I will not attempt its description.

The function of the kidneys consists in the secretion of the urine. There is no satisfactory explanation of the secretion and excretion of urine, in all its details. Flint says that in the present state of our knowledge we must regard the excrementitious constituents of the urine as formed essentially in the system at large, and merely separated from the blood by the kidneys.

Physical characteristics of the urine.—The amount excreted by a healthy person, who eats and drinks moderately, varies between 1400 and 1600 c.c. or an average of 1500 c.c. in 24 hours. The amount varies with the time of day, with the activity of the individual, with the amount of fluid imbibed, and with the amount of perspiration, etc.

Color.—The peculiar color of urine is due to a nitrogenised principle known by a variety of names, viz.: urrosacine, urochrome, urohematine, uroxanthine, and purpurine. Its ultimate composition is not settled, although it contains C.O.H.N. and probably iron. It is supposed to be much like the coloring matter of the blood, and probably formed from hematine, the coloring matter of that fluid.

Methylene blue passes readily through the kidneys, administered in the mouth, giving a decided indigo-blue color. Bile, blood, and the like, color the urine characteristically, but these questions belong to another branch of medicine.

Odor.—The odor of fresh urine is slightly aromatic; the cause of this odor is unknown. The temperature of fresh urine as it passes is nearly 100° F. As it cools it loses its aromatic odor and becomes urinous and then ammoniacal. The use of certain foods and medicines change remarkably the odor. For example, asparagus, cauliflower, turpentine, cubebs and saffron.

Transparency.—Normal or physiological urine is always clear and transparent, and if it is not transparent its consideration belongs to the diagnostician or pathologist—our study is physiology.

Reaction.—Normal urine is acid in reaction, and its acidity is due especially to the acid alkali-phosphates. It may be due to

the presence of a free organic acid, but the rôle played by free acid is unimportant, and the fact of its presence is a mooted question. Sometimes directly after a meal the urine is alkaline, but this phenomenon soon disappears, and it has no clinical significance.

The alkaline carbonates and salts of the vegetable acids taken into the stomach render the urine alkaline. It may seem curious that both alkalies and vegetable acids have this effect, but physiological chemistry accounts for this phenomenon.

The reaction of urine is usually tested by blue and red litmus paper. You must note whether the urine is alkaline when voided, and after standing for a time. Note also whether the alkalinity, if present, be due to the volatile, (ammo. carb. from breaking up of urea), or the fixed alkalies (alkali-phosphates) taken into the body as food or medicine. To determine this point, the red litmus, turned blue by the urine if exposed for a time to warm air, will return to its red color, but if the reaction is from fixed alkalies it will remain blue after drying. Sometimes the same urine will turn blue litmus red, and red litmus blue. This phenomenon is called amphoteric, and has no satisfactory explanation and no symptomatic value.

Bradshaw, of Liverpool, maintains that litmus could not be employed as an indicator in the estimation of acidity of the urine, because solutions of the salts of phosphoric acid are never neutral to litmus; that if they were not distinctly acid or alkaline they were amphoteric.

Bradshaw advocated the use of phenol-phthaline as an indicator of acidity, and maintained that objections to its use are not valid. The teaching is that acidity of the urine is diminished after meals. Bradshaw found, after making 160 estimates of the acidity of urine, that in health the acidity followed a fairly regular curve; high during sleep, it fell rapidly after "getting up" and remained at a minimum until about noon, after which it rose steadily and reached a maximum about 9 p.m.

He claims that the amount of acid excreted is apparently diminished or increased by a more or less bulk of water present, and that alkalies and other diuretics only apparently lessen the amount of acid by dilution and by combination.

Solid Ingredients.—The amount of solids excreted in twenty-four hours is generally 60 to 70 grams. If we find a small amount of solids, say 20 grams, and the quantity of water increased, it indicates hydruria. If we find a large amount

of water and a normal or lesser amount of solids it is called polyuria.

Urinary insufficiency is a condition in which the amount of solids is abnormally diminished, without reference to the bulk of water. If there is morbidly diminished secretion it is called oliguria.

To estimate the amount of solids passed in twenty-four hours, multiply the decimal of the specific gravity by the coefficient 2.33 which gives the amount of solids in 1000 c.c. If the urine—twenty-four hours' product—is measured by ounces multiply the decimal of the specific gravity by the number of ounces and this sum by 1.1; this gives you the total solids in grains.

Solids of human urine, according to Flint: (1) urea; (2) urate of soda, neutral and acid; urate of ammonia, neutral and acid, small quantity; urate of potassa, trace; urate of lime, trace; urate of magnesia, trace; hippurate of soda, potassa and lime; lactate of soda, potassa and lime; creatine; creatinine; oxalate of lime; xanthine—indican, uroindican; margarine, olein and other fatty matters; chloride of sodium; chloride of potassium; hydrochlorate of ammonia; sulphate of soda, potassa and lime; phosphate of soda, neutral and acid; phosphate of lime, acid and basic; phosphate of magnesia; ammonium—magnesium phosphate; silicic acid; urrosacin, coloring matter; mucus; gases.

These are the normal constituents of the urine: total solids, 4.3 to 4.6 per cent.; urea, 2.5 to 3.2 per cent.; uric acid, 0.03 to 0.05 per cent.; creatinine, 0.036 to 0.052 per cent.; hippuric acid, 0.02 to 0.06 per cent.; chlorides, 0.7 to 0.8 per cent.; earthy phosphates, 0.07 to 0.08 per cent.; phosphoric acid, 0.19 to 0.22 per cent.; sulphuric acid, 0.10 to 0.17 per cent.

These tables show that urea and the chlorides are in a large percentage, so that the specific gravity is mostly due to these substances.

The other substances are present in small quantities and some only in traces and their presence or absence changes the gravity to a slight degree. The gases have slight importance.

Urea is the most constant of the urinary constituents, and exists in the greatest quantity. 30 to 40 grams are secreted in twenty-four hours. Upon a flesh diet more is excreted than upon vegetable diet. It is a nitrogenous substance, and is derived from the waste of nitrogenised principles.

Urea is found in several of the fluids and solids—muscles and liver—of the body. It is one of the few organic principles that can be produced synthetically by the chemist.

Uric acid is a constant constituent in the urine of the carnivora. It is sparingly soluble in water and totally so in alcohol and ether, so that it exists in small quantities as a free acid, but is generally found in combination as urates. It is a dibasic acid, forms both neutral and acid salts. It bears a relation, quantitative relation, with urea—1 to 30.

The remaining normal organic constituents of the urine have little value in general diagnosis, for the reason it is so difficult to identify and separate them, and the rôle they play in the human economy is an incomplete chapter.

Normal Inorganic Constituents.—They are taken into the system with the food.

Chlorides.—Next to urea the chlorides are the principal constituents of the urine. The chlorides are almost entirely the sodic and potassic salts. They diminish in repose of the body, in all acute febrile diseases, and in chronic affections. They increase with a salty diet, with energetic bodily or mental exercise, in intermittent fever and with dropsy.

Phosphates.—3.5 grams of phosphoric acid in combination are excreted daily. The phosphates increase with the introduction of phosphatic compounds; in acute febrile conditions and with the use of abundant animal diet. They decrease in urine of low specific gravity; in kidney and heart diseases and in disorders of digestion and chronic diseases of the brain.

Sulphates.—Are the neutral sulphates (salts) of potassium and sodium. They increase by an increased exhibition of the sulphur compounds and from an exclusive flesh diet, and in certain febrile processes with excessive excretion of urea. They decrease with an exclusive vegetable diet.

Abnormal constituents of the urine.—I will pass for the present the abnormal and accidental constituents, including sediments. They are albumin, sugar, leucine, tyrocine, certain coloring matters, bile acids and accidental substances. The kidneys excrete normal, abnormal, pathological, and accidental substances.

The practical lesson to be learned from this brief outline of the renal function may be stated as follows: You, as nurses, are to know the amount of urine passed by the patient in twenty-four hours, its color, its odor, its gravity, its reaction, and its

transparency. You should supply yourselves with a urinometer, a small open-mouthed bottle, tightly corked, containing slips of both red and blue litmus. The amount, the gravity, the reaction and clearness of the clinical urine are therapeutic guide posts along the medical highway.

723 ELLICOTT SQUARE.

SOCIETY PROCEEDINGS.

Medical Society of the County of Erie.

Eightieth Semiannual Meeting.

REPORTED BY FRANKLIN C. GRAM, M. D., Secretary.

THE president, WM. C. PHELPS, called the 80th semiannual meeting of the Medical Society of the County of Erie to order at 10.30 a.m., June 11, 1901, in the parlors of the Young Men's Christian Association.

The secretary read the minutes of the previous meeting, which were adopted.

Dr. WM. WARREN POTTER, of the committee on membership, presented the names of the following applicants, and recommended their election: Drs. J. Henry Dowd, Samuel H. Lynde, Geo. H. McMichael and Theodore V. Bauer. The recommendation was adopted by the society and all were declared elected.

Dr. CHAS. E. CONGDON, of the special committee, appointed at the previous meeting, asked for more time for his committee, which was granted.

Dr. WM. WARREN POTTER called attention to the recent change in the by-laws of the State Society, whereby the representation from each county society was increased to five delegates from each assembly district under similar conditions as formerly, without increasing the cost to the society. This would increase the delegation from Erie County to the state society to forty, instead of eight, as heretofore. There are usually a number of applicants for the honor, but as it is desirable to elect only such as will qualify for permanent membership it is advisable to canvass before election. He therefore moved that a committee, consisting of the officers of the society and the chairman of the membership committee, be appointed to present names of members to be elected as such delegates.

The resolution was adopted and later this committee presented the following names of members who were elected to serve for three years with the delegates elected in January, 1901: Drs. Wm. C. Phelps, E. H. Ballou, R. S. Myers, F. E. Fronczak, Julius Ullman, John H. Grant, Wm. F. May, C. E. Congdon, D. H. Sherman, C. P. Smith, G. R. Trowbridge, G. F. Cott, F. E. L. Brecht, J. J. Mooney, Joseph Fowler, C. A. Wall, Julius Pohlman, B. G. Long, W. M. Ward, J. H. Dowd, J. B. Coakley, Henry R. Lapp and A. E. Woehnert.

Chairman J. B. COAKLEY, of the Board of Censors, submitted the following report, which was received and filed:

To the Medical Society of the County of Erie:

Your Board of Censors respectfully reports that since its last report, made and received at the meeting of this society on the 9th day of January last, the censors have endeavored to perform faithfully the work of investigating cases of the illegal practice of medicine and surgery. Complaints have been received against several individuals and these complaints have been carefully investigated. The persons to whom they refer have been visited and in two or three cases our investigation and visit has resulted in the discontinuance of the illegal practises complained of, which, in most instances have seemed to be the result of ignorance and mistake rather than of deliberate intention to violate the law.

In our last report we made reference to the case of one Arthur de Collard, and stated that we had under consideration the advisability of further prosecuting his case. While this matter was under consideration Mr. de Collard found it advisable to depart from the city, and, as we understand from this state, and therefore such proceedings became unnecessary.

As noted also in our last report, our counsel during the last session of the legislature endeavored to have the medical law amended in several important particulars, referred to in our last report, and to that end had conferences with the representatives of the Medical Society of the State of New York, and the Medical Society of the County of New York, at Albany, during the session of the legislature. He reports that he found that the proposed act to amend the medical law had been so drawn as to contain provisions especially aimed at the practice of so-called christian science, osteopathy and the like, and that very early in the session he became convinced that the drastic and far reaching character of the proposed amendments was such that it did not seem probable that the legislature would adopt them. As you have no doubt learned from the public press, there were a number of hearings before the legislative committees in regard to these amendments, which were embodied in what was known as the Bell Medical Bill, and the final result was, as anticipated,

that the legislature declined to pass these amendments and that the whole subject of medical legislation which was involved with them was put on the shelf until another year. Our counsel did not participate in these hearings on one side or the other, as he did not believe it good policy to do so under the circumstances. We hope and believe that at the next session of the legislature the practical and sensible amendments which we have suggested and advocated will receive favorable consideration at the hands of the legislature.

Respectfully submitted.

J. B. COAKLEY, Chairman. HENRY C. LAPP.
H. R. HOPKINS, FRANCIS E. FRONCZAK,
IRVING W. POTTER.

Dr. P. W. VANPEYMA called attention to the death of Dr. Nichell, one of the oldest and most respected members of this society, which had not come to the notice of the officers in time to call a special meeting to take the usual action, and he therefore presented the following memorial which was unanimously adopted:

IN MEMORIAM—HENRY NICHELL, M. D.

Dr. Henry Nichell was born at Mainz, on the Rhine, July 17, 1821. He graduated from the University of Giessen in 1847. The following year he married Charlotte Erkell Kuhn, who at the time of her marriage to Dr. Nichell was a widow with two small children. These children, a boy and a girl, were adopted by the doctor and treated with paternal affection. The son, Dr. Charles Nichell, died some years ago in San Francisco, California. The daughter is now Mrs. Minna J. Roesse, of 27 Day's Park, Buffalo, N.Y.

Dr. Nichell came to Buffalo September 17, 1848. For a short time he practised on Main Street, but soon settled at No. 80 Sycamore Street, where he continued his practice for a period of about forty-eight years. He graduated a second time from the University of Buffalo in 1857. He early joined the Medical Society of the County of Erie and he was for many years, and until the time of his death, a member of the American Medical Association. He died February 14, 1901, at the home of his adopted daughter.

Dr. Nichell was rather short of stature and slight of figure, neat, quiet, and gentlemanly in appearance. In the care of his patients he was kind, painstaking and conscientious. He was a man of the strictest integrity and possessed of a high ethical sense; extremely modest and yet very proud to be a member of the medical profession. He was a diligent student and his knowledge of medicine was far above the average, and so recognised by his professional associates. Pathology and materia medica were perhaps his favorite studies. He had paid special attention

to the diseases of children, and the size of his practice attested for many years the general appreciation of knowledge and skill. As he was proud of his profession, so the medical profession has reason to be proud of him—a modest, conscientious, intelligent worker in the ranks.

The secretary stated that the parlors of the Y.M.C.A. had been placed at the gratuitous disposal of the society, and recommended that a gift of \$5.00 be granted the janitor for his extra work. The recommendation was adopted.

The president then introduced Dr. Henry L. Elsner, of Syracuse, President of the Medical Society of the State of New York, who had honored the society with his presence, and who, after paying several compliments to the Erie County Society, read a carefully prepared paper on The diagnosis of malignant endocarditis.

Dr. SUITER, of Herkimer, a former president of the state society, was likewise presented and briefly acknowledged the compliment.

Dr. Elsner's paper was discussed by Drs. Suiter, Hopkins, Clark, E. H. Long and P. W. VanPeyma.

Dr. HENRY R. HOPKINS read a paper on The fan system of heating, ventilating and air supply of certain Buffalo schools. (See page 1.)

Prof. H. M. HILL presented a paper on Ideal school ventilation, but owing to the lateness of the hour Dr. T. B. Carpenter's paper on School ventilation as it exists, was read by title.

Prof. Henry P. Emerson, superintendent of public schools discussed these papers.

A vote of thanks was tendered Dr. Elsner for his interesting paper, after which the society adjourned.

The British Congress of Tuberculosis.

The British Congress of Tuberculosis for the Prevention of Consumption, was opened in London, July 22, 1901, by Field-Marshal H.R.H., the Duke of Cambridge, president of the congress, who welcomed the foreign delegates and spoke of the interest taken in the congress by King Edward. Lord Lansdowne, the Foreign Secretary, also welcomed the delegates and in the name of the government promised all the assistance the govern-

ment was able to afford the congress in its endeavors to combat a disease more desolating than war.

After the Lord Mayor of London, Frank Green, Lord Strathcona and Mount Royal and others had addressed the congress, Lord Lister, one of the British vice-presidents of the congress, in a few words conveyed the thanks of that body to Prof. Robert Koch, of Germany, and the other scientists present for their work, saying they knew the enemy they had to deal with and that it was not only the prevention, but the cure of consumption, that the congress hoped to effect.

A telegram was read from King Edward to the Duke of Cambridge, as follows: "I pray you heartily to welcome for me the eminent men of almost every nation who have assembled under your presidency and to express to them my earnest hope that the result of the deliberations of the congress will be to assist the world in mitigating this dire disease, which has baffled the most distinguished physicians for so long."

Prior to the adjournment of the first session the Duke of Cambridge announced that a gift of £120,000 would be forthcoming for the purpose of establishing the first public tuberculosis sanitarium, as soon as the recommendations of the congress concerning its establishment had been formulated.

Four hundred foreign delegates attended the opening session. They included a number of Americans and Canadians. Several ambassadors and foreign ministers, including Joseph H. Choate, the American Ambassador, also were present.

Mr. I. N. Ford, special London correspondent of the *New York Tribune* said, under date of July 24, Robert Koch's address before the congress was an event of world-wide importance, since he was the recognised leader in the campaign against consumption. The hall was crowded with medical men, and there was a group of scientific experts around Lord Lister on the platform. Professor Koch was introduced by Lord Lister with the simplicity becoming to each great man of science, and was welcomed with British heartiness. His address occupied about eighty minutes, and was followed with intense interest. Professor Koch read it in English, with a deliberate painstaking effort to repress his marked German accent, and with no lack of emphasis when controversial passages were reached.

Tall, full habited, with a high forehead, large spectacles and stooping shoulders, he was the embodiment of German scholarship and thoroughness in scientific investigation.

Professor Koch's main theme was the best method of fighting tuberculosis in the light of experience gained in combating the bubonic plague, cholera, hydrophobia and especially leprosy, which he described as caused by a parasite closely resembling the tubercle bacillus. He pronounced hereditary consumption to be extremely rare, and considered that the sputum of a consumptive patient was the chief source of infection.

He gave an account of recent experiments at Berlin which served to prove that human tuberculosis could not be transferred to animals. Lord Lister subsequently admitted that the evidence seemed satisfactory. Koch had also satisfied himself that the converse proposition was also true, and that human beings were not susceptible to bovine tuberculosis communicated through milk, butter and meat. This conclusion Lord Lister was unwilling to accept on the evidence cited by Koch, and several experts from the continent thrashed out the matter with various results. Koch himself declared that the danger of infection by the milk and flesh of tubercular cattle was hardly greater than by hereditary transmission, and that measures against it were inadvisable.

The chief source of human tuberculosis was the diffusion of sputum, and natural preventive measures were the removal of patients from small, overcrowded dwellings, the establishment of special hospitals for them, compulsory notification to the health authorities of cases of tubercular disease, systematic disinfection of sick rooms and the founding of sanatoriums where cures could be effected.

Koch took a hopeful view of both preventive and curative measures, explained how much good work had been done by consumptive hospitals in England, and highly praised Dr. Biggs's system of organisation in New York as worthy of the study and imitation of all municipal and sanitary authorities.

PROGRESS IN MEDICAL SCIENCE.

Ophthalmology.

CONDUCTED BY ALVIN A. HUBBELL, M.D., Buffalo, N.Y.

KRÖNLEIN'S OPERATION FOR REMOVAL OF TUMORS OF THE ORBITAL CAVITY.

KRÖNLEIN (*Ophthalmic Review*, January, 1901.) realising the difficulty of access to the apex of the orbital cavity, has devised an operation by which this may, in great measure, be overcome,

and at the same time preserve the eyeball. His method may be summarised as follows: A skin incision is made in a curved line beginning at the ridge of bone—easily felt by the finger—which bounds anteriorly the temporal fossa, about 1 cm. above the orbital margin, curving forwards to have its middle point opposite the outer canthus, and terminating over the zygoma half way between the tragus and the external canthus. One advantage of the incision being thus curved, is that when the parts are replaced after the operation the soft parts are subjected to no tension, but fit quite readily. By means of a periosteum elevator, the periosteum covering the whole outer wall of the orbit, is now eased off its bed, and the point being carefully introduced into the inferior orbital fissure and the handle carried toward the nose, it is completely lifted off. This is not difficult, as it is only at the orbital margin and the sutures that the periosteum is at all firmly adherent. Three bone sections are now required—two horizontal and one oblique. The first divides the external angular process of the frontal bone close to its base, the next (oblique) runs from the deepest portion of the first behind the suture, which joins the malar and sphenoid, and ends in the speno-maxillary fissure. This is best accomplished by means of a narrow sharp chisel, the orbital contents being kept well out of danger of injury meanwhile. The third passes through the frontal process of the malar, close to its root, and also ends in the speno-maxillary fissure; it may be made either with a special small saw or with a sharp chisel. In order to have as much space as possible it is well to keep the two straight sections as far apart as may be, and much care should be taken to avoid any unnecessary splintering of the bones, especially during the chisel work.

For this reason the chisel ought to be both fine and very sharp, and the strokes of the hammer very light. The author devises a special instrument for this purpose, for whose characteristics reference to the original (p. 564) should be made, as well as for advice regarding special saws. The oblique incision must always be made before at least the second of the straight sections, else there is no firm support for the working of the chisel. The dimensions of the piece of bone thus loosened vary considerably with the shape of the particular orbit, but should be about 3 c.m. high and $2\frac{1}{2}$ c.m. deep—that is, about an inch in depth and rather more than that in height. It is rolled outward without difficulty about its vertical axis along with the soft parts

covering it, thus giving free access to the deeper parts of the orbit. The periosteum is now divided with blunt-pointed scissors from before backwards and turned aside, when the contents of the orbit are clearly seen. Further steps will, of course, depend on the condition of affairs then discovered, but generally the external rectus is divided close to the sclerotic insertion, and into both ends of it, and of any other muscles which requires division, stitches should be inserted for convenience of subsequent identification and reposition. At the close of the operation the flap of bone and soft tissue overlying it is replaced, and held in position by a few stitches passing through the periosteum; a drain of tubing or iodoform gauze is left in for a few days; silk is usually employed for the skin wound.

THE PATHOLOGY OF SERPENT ULCER OF THE CORNEA.

DOTSCH, DR. A., of the Jena Eye Clinic (*Die Ophthalmologische Klinik*, October 5, 1900; *Annals of Ophthalmology*, January, 1901.) This is a very interesting and important communication and contains a complete analysis of the cases of serpent ulcer seen in the Jena Eye Clinic during the years 1898 and 1899. The number of cases seen was 98. I think the chief point of interest lies in the results of the careful bacteriological examinations which were made in most of these cases. He has been able to confirm absolutely the conclusions of Ulthoff and Axenfeld, who, as we know, found in the majority of their cases the Frankel-Weichselbaum diplococcus; in other words, the pneumococcus. In 63 cases the pneumococcus was found 41 times and in 35 of these cases in pure culture. The history of an injury was noted in 69 cases. Inasmuch as this organism flourishes exceptionally outside of the human body it is doubtful whether it was introduced into the eye on the foreign body, but that the eye was subsequently infected by this organism, which we know, is not infrequently found in the mucous membrane adjacent to the eye. It would, seem, then, that pneumococcus ulcer is the proper designation for this variety of corneal trouble.

ON THE ACTION OF SUPRARENAL EXTRACT.

ZIMMERMAN, STUTTGART, (*La Clinique Ophthalmologique*, October 10, 1900; *Annals of Ophthalmology*, January, 1901.) Fresh solutions of dried suprarenal glands, Zimmerman states, may be introduced into the conjunctival cul-de-sac without producing any

irritation. He has found that the conjunctival vessels contract and disappear from view first, but if the action of the material be continued sufficiently long, the scleral vessels will do the same. This he says, renders the drug of considerable service in inflammatory and congestive disturbances of the ocular structures. He has found that probably the most marked therapeutic action which may be noticed, is the ability of gland material to quiet certain intractable cases of glaucoma, particularly if it be used in connection with weak solutions of some of the older miotics. Darier's formula, which contains three centigrams of chlorohydrate of pilocarpine and two centigrams of salicylate of eserine to ten grams of an equal part solution of dried suprarenal glands in water have given him the best results.

AMBLYOPIA FOLLOWING THE INTOXICATING USE OF JAMAICA GINGER. EDWARD STIERIN (*Jour. of the American Med. Assn.*, January 5, 1901; *Amer. Jour. of Ophthalmology*, April, 1901,) finds eight recorded cases in American ophthalmic literature of blindness following the ingestion of ginger. His case was that of a man, 36 years of age, who had been drinking heavily. On sobering up in a place where he could not obtain liquor, he consumed one dozen ounce bottles of Jamaica ginger in one forenoon. About noon he fell into a deep stupor, from which he awoke about 3 p.m., totally blind. Treatment consisted in confinement to bed in a dark room; three hot foot baths were given during the night, and twenty grains each of calomel and compound jalap powder in divided doses; also two one-eighth grain doses of pilocarpine mur. hypodermatically. The pilocarpine and calomel were continued for two days, when they were discontinued and 20 grain doses of potassium iodide given. On the fifth day his vision was 20-30 in each eye. The lesion in these cases is believed to be a retrobulbar neuritis.

Pediatrics.

CONDUCTED BY MAUD J. FRYE. M. D., Buffalo, N. Y.

RARE CAUSES OF SUDDEN DEATH.

METCALFE (*London Lancet*, May 25, 1901,) reports a case of sudden death from asphyxiation which the post mortem showed to have been caused by the blocking of the trachea by pieces of caseous gland. The patient, a girl of 13, had three years pre-

viously been treated for right-sided phthisis, but was considered cured. The right pleura was firmly adherent throughout. The trachea was blocked by pieces of caseous gland. On the right side, half an inch above the bifurcation, was a round lobe admitting a No. 12 catheter. This communicated with a sac containing a caseous gland similar to that found in the trachea. There was an old fibroid tuberculous lesion at the root of the right lung almost completely healed.

ACUTE COLITIS IN CHILDREN.

CANTLEY (*London Lancet*, May 25, 1901,) reports an epidemic occurring in a certain London barracks. Six out of thirty children were attacked and three out of thirteen adult women. Four of the children died. Only one child under two years—an infant of three months—was attacked. In each case the onset was sudden, with vomiting, diarrhea and pyrexia. Vomiting was the most pronounced symptom. Anorexia was complete, the tongue sometimes clean, sometimes furred, with a dry, brown center. The stools were very frequent, small, green, offensive, and contained bright blood, mucus, and little or no fecal matter. There was no marked tenesmus. There was no tenderness along the colon. The abdomen was sometimes retracted and empty, sometimes moderately distended. There was considerable restlessness and nervous prostration, suggestive of a general toxemia. There was considerable fever throughout. Autopsies in two cases showed the inflammatory process was confined to the colon and the lower part of the ileum, the amount of inflammation in the ileum being of minor importance. In one case a bacteriological examination was made, the bacillus enteritidis sporogenes and the bacillus coli communis being isolated.

TREATMENT OF PNEUMONIA IN CHILDREN.

FISCHER (*N. Y. Med. Jour.*, April 27, 1901,) gives his treatment of pneumonia in children as follows:

When fever begins give one drop doses of aconite, repeated every hour, with or without fresh spirit of mindercrus, of the latter half teaspoonful doses, until a general diaphoresis is produced. Give calomel till a liquid green stool is produced; it will not only exert a hydragogue effect, but will also stimulate the flow of bile and the action of the kidneys. This is extremely important in view of a possible complication of nephritis.

Remember that water will carry off toxic products through the gastro-intestinal tract and also stimulate the flow of urine. Give *ad lib.*

Give an occasional dose of castor oil to carry off the sputum, which has been swallowed.

If coal-tar antipyretics are given, guard them with musk or camphor. It is better to rely entirely on the cold pack, or if cerebral symptoms are marked, the tub bath will be found advantageous. In very young and delicate infants, it is advisable to give a few drops of Hoffman's anodyne immediately before giving the bath. Vigorous rubbing while the child is in the bath will stimulate the circulation and prevent collapse. A mustard foot-bath will invariably stimulate the circulation and promote diaphoresis. The duration of the bath should be about two minutes.

Intense dyspnea will be best relieved by dry cups. Ventilate thoroughly. If necessary to secure sleep codeine may be given, 1-10 grain, repeated in an hour or two, for a child of one year. For stimulants, when necessary, Tokay wine or good whiskey. Feed carefully, using milk, soups, with or without cereals, egg albumen.

INFECTIOUS DISEASES AND THE MILK SUPPLY.

KOBER (*Am. Jour. of the Med. Sciences*, May, 1901,) presents conclusions drawn from the study of 330 outbreaks of infectious diseases traced to the milk supply. He points out some of the circumstances under which milk may be the cause of disease:

1. Sour milk, or milk which is on the point of turning is very liable in infants, children, or persons of feeble digestion to produce gastric and intestinal catarrhs of an acute or chronic character. In the more acute cases, in bottle-fed children, we have the phenomena of cholera infantum. The cause of untimely acidity of milk are improper feeding of the animals, dirty milk pans and rooms, unclean udders and teats, and a high temperature.

2. Milk may be rendered unfit for use and cause sickness in children by reason of improper food of the animal, or from use on the animal of strong remedial agents which may be excreted in the milk. The symptoms of poisoning from arsenic, copper, iodine, lead, mercury, tartar emetic, atropin, colchicum, croton oil, strychnin, veratrum viride, etc., have been thus observed.

3. Milk may be morbid as the product of a diseased animal. Inflammatory conditions of the udders and teats, especially the

condition known as garget, are doubtless responsible for a large number of cases of pseudo-diphtheria and other septic infections. The milk of animals suffering from acute specific enteritis, puerperal and other septic fevers, foot and mouth disease, cow-pox, anthrax, pleuro-pneumonia, rabies and tetanus has also been known to produce sickness in the consumer.

4. Three out of twenty-five samples of Boston milk transmitted the germs of tuberculosis to the animals experimented on. The ordinary market milk of Copenhagen proved infectious in six out of twenty-eight rabbits.

5. Milk may acquire infectious properties after it leaves the cow. The writer has tabulated the histories of 330 outbreaks of infectious diseases spread through the milk supply; these outbreaks consist of 195 epidemics of typhoid fever, 99 epidemics of scarlet fever, and 36 epidemics of diphtheria.

Of the 195 epidemics of typhoid fever in 148 the disease prevailed on the farm. In 67 instances the infection probably reached the milk by percolation of the germs into the well-water with which the utensils were washed; in 16 of these cases there was intentional dilution. In 7 instances, the infection was attributed to the cows wading in sewage-polluted water and pastures; in 24 instances the dairy employees also acted as nurses; in 10 instances, the patients while suffering from a mild attack, or during the onset of the disease continued their work. Of the 99 epidemics of scarlet fever the disease prevailed in 68 instances, either at the dairy or milk farm. In 2 instances the infection was conveyed by means of infected bottles or milk cans left in scarlet-fever houses.

Of the 36 outbreaks of diphtheria tabulated, there is evidence that the disease prevailed at the dairy or farm in 13 instances. In 12 instances the disease is attributed directly to the cows having inflammatory conditions of the teats or udders. These instances may be regarded as typical examples of streptococcus or staphylococcus infection, giving rise to a form of follicular tonsillitis or pseudodiphtheria, often difficult to distinguish clinically from true diphtheria or scarlet fever.

THE TREATMENT OF SUMMER DIARRHEA IN INFANTS.

KERLEY (*Medical News*, August 4, 1900,) writes about the practical points in the treatment of summer diarrhea. The two chief features of a rational treatment of summer complaint are elimina-

tion and diet. The former relieves the bacteria and their products from the digestive tract; the purpose of the diet is to give nourishment which will not furnish a favorable medium for the growth of the germs.

If no vomiting is present castor oil or calomel should be given, in order to clear the intestines. If the infant is vomiting this symptom must first be controlled by diet and lavage.

As regards diet, the first thing to be done is to stop the milk, no matter whether it is breast milk, cow's milk, or peptonised milk, or condensed milk, or any of the milk foods. The younger the patient the more imperative is the necessity of discontinuing the milk. In some cases it will be necessary to keep the milk away only for twenty-four hours, in others it has to be excluded for weeks. The diet in such cases should be as follows: if there is vomiting the stomach should be washed, and nothing whatever given for a few hours, when a teaspoonful of water may be tried. If the water is retained it may be given every fifteen minutes. The next step is to give increased quantities of dextrinised barley water at long intervals. If the case is one of diarrhea without vomiting he instructs the mother to give from 3 to 5 ounces of the dextrinised barley, either plain or salted, to which is added from 1 to 2 ounces of chicken, beef, or mutton broth.

The broths must be given cautiously, for in some patients they have a decided laxative effect. The writer does not use white of egg in water, because many children fail to digest it. The amount of food given may correspond to that given in health, but it should be given in smaller quantities at shorter intervals. Plain boiled water may be given at any time for thirst. The use of a proprietary preparation of diastase for the purpose of predigesting the barley is recommended. A too strong milk mixture must not be given on resuming the milk diet, and the latter should not be commenced until the stools are nearly normal. The increase of milk should be gradual. In cases in which a child cannot return to milk in the smallest quantity until October or November, scraped beef, beef juice, and predigested cereals are our main reliance. A teaspoonful or two of some soluble proprietary food may be added to each feeding of dextrinised barley. In breast-fed babies the attacks are usually milder, and they can often return to breast-milk after twenty-four or forty-eight hours.

The writer uses practically but four drugs in summer diarrhea, the castor oil and calomel, already mentioned, and bismuth sub-

nitrate and opium. He uses large doses of bismuth subnitrate (12 to 20 grains) with aromatic syrup of rhubarb (3 minims) and water enough to make a drachm. Opium should not be given unless the passages are more than six or seven daily. In cases where there is much fever and prostration, 4-6 stools are of benefit as drainage, and opium and astringents should not be given. The best form of opium to give in such cases is Dover's powder, from $\frac{1}{4}$ to $\frac{1}{2}$ grain, every two or three hours for a child eight months of age. For the fever, packs, baths and sponging are all that is necessary. Alcohol disturbs the stomach, and strophanthus, digitalis, or strychnin should therefore be given if stimulants are required. For uncontrollable vomiting a hypodermic injection of 1-100 gr. morphine with 1-600 gr. atropin may be given to a child one year old.

Irrigation of the colon, in the opinion of the writer, has been overdone. It is of great service when the stools are infrequent and foul. It is also useful in active cases with 6-8 passages, particularly if there is any blood or much mucus. The irrigations should be carried out at eight, twelve, or twenty-four hour intervals, depending upon the nature of the case. Boric acid or salt solution is to be used, or, if there is much mucus a solution of tannic acid, 1 per cent.

"It is not enough that the child be given sterilised milk and breast-milk; he must be made comfortable. The clothing should be of the lightest and on very hot days he should be in the open air in the shade, if in the country; if in the city, the coolest room in the house. Two or three fifteen minute spongings with water at 60° F. daily will make the child ever so much more comfortable. Further we know that the digestive capacity is lessened during the heated term and the milk should be reduced in strength from one-fourth to one-third on very trying days, adding water to replace the quantity removed. A child with summer diarrhea should not come in contact with other young members of the family, for summer diarrhea must unquestionably be placed in the list of communicable diseases."—*Abstracted in Pediatrics.*

Genito-Urinary and Syphilitic Diseases.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

THE ETIOLOGY AND RATIONAL TREATMENT OF RENAL DISEASES, COMMONLY CLASSED AS "BRIGHT'S DISEASE."

PORTER, W. H., (*Post Graduate*, December, 1900,) states that in order to understand the etiology and treatment of these renal

diseases, the physician must have a clear knowledge of the anatomy, physiology, as well as the pathology and symptomatology of these glands.

Histologically, these organs are composed of two distinct kinds of tissues, viz.: the epithelial and connective tissue groups. The latter is the foundation or base for the epithelia and the intervening tissue about the tubules, vessels and nerves. All of these make up the intertubular structure. The vascular portion—particularly the malpighian tufts—secrete the water with the inorganic salts, while the intertubular portion of the vascular areas bring the proteids and oxygen into close relation with the uriniferous tubules, when the protoplasmic cells reduce them into catabolic excreta, such as urea, uric acid, kreatin, water and carbon-dioxide. The carbon dioxide is taken up by the alkaline blood and eliminated by the lungs. The water eliminated by the malpighian tufts is the water taken into the system under its own form, but the water which enters through the epithelial cell is formed by the oxidation of the proteid molecule. So long as the renal gland is not overtaxed and the nutrition supply is of the right kind and gravity, the organ will physiologically perform its work. Overload this gland or impair its nutrition and innervation and retrograde changes will follow and cause renal affections, classed as Bright's disease.

In the event that there be an insufficient supply of oxygen, then there will be imperfect oxidation reduction and portion of the proteid molecules will be isomerically transformed in the protoplasm in the cells of the renal tubules, and eliminated as such into the lumen of the uriniferous tubules. In the milder forms of incomplete oxidation of the proteid elements, there is a lessened output of urea and an increased output of uric acid. In the more aggravated conditions various products indicative of still more incomplete oxidation reduction are eliminated, such as oxalic acid, lactic acid, and the like. The proteid molecules are isomerically transformed in the absence of oxidation and eliminated, as nucleo-albumin. They are eliminated as isomeric forms of albumin, as found in the urine. A careful examination of the urine will determine the ability, the perfection or imperfection of the system to transform the proteids.

The writer gives a method for detecting the reduction or lack of reduction of the proteid substances. This method is described as follows: Fill a test tube nearly full of urine, bring the upper stratum to the boiling point, then add a few drops of 4 per cent.

acetic acid solution, and again bring to the boiling point, then set aside for a few hours to cool. If the excretion of uric acid is normal in amount no formation of uric acid crystals will be found in the urine examined. If, on the other hand, there is an abnormal excretion of uric acid that is held in solution, the heat and the acetic acid starts up a chemical action by which the acid phosphate of soda is formed, and the uric acid precipitated. The crystals of uric acid begin to form directly under the surface layer of the urine. The amount formed will give the relative quantity excreted. While this is not an absolute quantitative method of estimating the excess of uric acid, it is one that is practical and tells us very quickly that there is an over-production, and also the relative amount of the over-production from day to day.

The uric acid may be precipitated and weighed and thus get the absolute quantity of free acid. The strong mineral acids, however, decompose the uric acid salts, and you get the total output of uric acid.

There are two forms of anatomical changes in these glands, viz.: one implicating the epithelial structures; the other affects the intertubular portion. The one is a parenchymatous, the other is an interstitial lesion. These two forms may combine, making a diffuse lesion. Intense congestion and blood toxicity incite an exudative or diffuse nephritis. The other forms are not inflammatory.

Causes of Bright's disease:

1. Taking into the system more proteids than are required for nutrition and growth; surcharging the blood and overworking the kidneys in their elimination. The transitory presence of albumin in the urine does not necessarily indicate a renal lesion; it may indicate elimination of a surplus, which threatens the integrity of the renal glands.

2. Another cause of degenerative changes in the renal epithelia is due to the elimination of the products of intestinal putrefactive changes. They are toxic and tend toward degeneration of the kidney in its efforts to transform and eliminate.

Indican is formed by the putrefaction of proteids in the intestinal canal. Indican uniting with a potassium salt forms indoxyl of sulphate of potassium, which obeys the law of inorganic substances, is readily absorbed into the circulation and eliminated by the renal glands. Its appearance in the urine is a danger signal, warning the physician of impending danger to renal structures.

Jaffe gave the following method for the detection of this substance: Take equal volumes of chemical hydrochloric acid and urine, add a few drops of a $\frac{1}{2}$ per cent. of potassium permanganate. If indican is present there will be a blue discoloration of the fluid. A small quantity of chloroform will cause a blue deposit and the amount and the intensity of the deposit will indicate a large or small amount of the indoxyl of sulphate of potassium.

3. Microorganisms are the most powerful factors in causing degeneration of renal cells. They act directly within the system and indirectly upon the alimentary contents. They produce toxics and the oxidation reduction products or the isomeric proteid elements. They impair nutrition, overburden the kidneys and beget degeneration.

Oxidation reduction proteids are found in the cells of glands and not in the blood or lymph, and it seems probable that they are isomeric.

Adami (Montreal) affirms that renal lesions are the result of the direct action of bacterial products, and that the bacterial action is within the system. It is more probable, however, from the evidence at our command, that the bacterial action, producing renal lesion, is brought about in the alimentary canal and not within the system.

The interstitial form of Bright's disease is largely dependent upon these conditions which cause the parenchymatous changes. The phenomenon and the etiological explanation of the development of the interstitial forms of renal disease is complicated and extensive, so that abstraction is not practical.

With a good understanding of the causes of renal lesions, their treatment is governed by a few plain and common principles. Knowing that the parenchymatous lesions are caused by over-eating and over-drinking, it is apparent that a dietary must be prescribed, and the intestinal canal freed from putrefaction and its results. The quantity of the food must be kept within the oxygenating capacity of the economy, to save the renal glands from overwork and faulty nutrition. Putrefactive fermentation in the alimentary canal is quickly manifested in the urine by varying quantities of indican.

Uric acid in excess of the normal quantity indicates over-feeding or imperfect oxidation, from over abundance of food or deficient amount of oxygen. Too much stress cannot be laid upon the significance of these two substances in the urine, nor

upon the importance of recognising their presence in the urine early, and also the necessity of removing the conditions that make possible their presence in the urine, if prevention or cure of renal lesions is to be successfully accomplished. Both of these conditions are positive indicators of a deteriorated state of the animal economy, and one which tends to lower the general nutritive activity of the system and invite bacterial invasion, for without a suitable medium the germs cannot thrive in the economy, nor produce their damaging effects. Therefore it becomes clear that to prevent an invasion of the system by bacteria, whose poison will eventually damage the renal structures, the two conditions just enumerated must be prevented.

ABSTRACTS.

HYPEREMESIS GRAVIDARUM.

This is a disorder that occurs during pregnancy (Smithwick, *Southern Med. Jour.*), and in most cases is confined to the earlier stages. It may be said that nausea and vomiting are, to a certain extent, normally associated with the pregnant condition of the female, but in some instances it assumes such proportions that it not only becomes pathological, but extremely dangerous. It may vary in severity from a slight "morning sickness" to an extreme state of nausea and vomiting, so that nothing will remain in the stomach, and even the thought of food will cause retching. In some of the more severe cases, if allowed to progress, the emaciation and exhaustion soon become a matter of no small moment and, unless the trouble is brought to a termination, death may occur as a result.

Hundreds of remedies have been recommended for its alleviation, but experience teaches that in most cases the gravid uterus has to be emptied of its contents to secure relief. In other less severe the desired relief comes from less radical measures.

In the treatment of pernicious vomiting of pregnancy it is unusually the custom to put off the producing abortion, as long as possible. Of course it is desirable to save the life of the child if possible, but it is not at all desirable to sacrifice the lives of both mother and child simply to give it a chance.

Among the numerous remedies recommended in the treatment of this condition, ingluvin (Wm. R. Warner & Co., Philadelphia,) gives me the best clinical results. I have frequently

seen patients who would vomit immediately upon taking anything into the stomach, almost relish this preparation and the vomiting immediately cease, irrespective of its primary cause. Having had such good results with it in its various forms of nausea and vomiting, I was induced to try it in the vomiting of pregnancy, both physiological and pathological, and have had excellent results up to date. In those patients in whom the vomiting amounts to nothing more than morning sickness, which may be considered physiological, it gives great relief; also when it comes to be pathological. It relieves the nausea and increases the appetite and assimilation to a marked degree, so that the patient's system is put in an excellent condition to undergo the ordeal of labor.

The following cases illustrate and confirm these statements:

Mrs. M., aged 22, primipara. Began suffering, presumably about the third week of pregnancy, with nausea and vomiting of rather a severe type. I administered some of the customary remedies, but she continued to grow worse, until about the tenth week, when I was seriously considering the propriety of inducing abortion. However, having had good results with the use of ingluvin in nausea and vomiting due to other causes, and associated with other conditions, I determined to test it in this case. I prescribed it in fifteen grain doses every four hours. The first dose was retained, quite to my surprise, as hitherto she had vomited everything taken into the stomach. From this time on she began to improve, being troubled only occasionally with nausea and vomiting, until she finally recovered. She gained about twelve pounds in weight and went through the remainder of the pregnancy and the period of confinement without any difficulty.

Mrs. S., aged 32. This was a third pregnancy. She had been troubled no little with nausea and vomiting during the preceding pregnancies, but at this time the condition was very greatly exaggerated. She consulted me during the sixth week, stating that there were very few times she could retain either food or drink. Her bowels were constipated, skin thick and sallow in appearance and tongue heavily coated. She was emaciated, in low spirits, as she had some difficulty with former births, all being instrumental deliveries, due to inertia of the uterus. I prescribed ingluvin in three daily doses of fifteen grains each. In one week she reported that she was improving rapidly, having only had, during that time, two spells of nausea and vomiting. Her appetite was good and she could retain almost anything that she desired for food. Her bowels were in an active condition and skin much better in appearance. Her spirits were decidedly more buoyant. I directed her to continue the medicine in the prescribed dose until near the time of con-

finement. She did so and I attended her. The labor was perfectly normal in all respects, and was a short one when compared with her previous labors, lasting about six hours.

Mrs. G., aged 24; second pregnancy. I was called in consultation in this case for the purpose of considering the propriety of inducing an abortion on account of pernicious vomiting. The patient was weak and exhausted, due to almost incessant retching and vomiting. She has been unable to retain any food for the last three weeks, and rectal alimentation had been resorted to; but now the rectum had rebelled, and there seemed nothing left that held out any hope for relief at all except an induced abortion. I advised the administration of ingluvin in doses of fifteen grains every three hours and very small quantities of such nourishment as she most desired. The first dose was promptly vomited, but it was immediately repeated and was retained. From this time on the medicine was retained, though her stomach was very weak for the first few days, and only very small amounts of nourishment could be retained. Once or twice during that time she had severe vomiting spells, but they eventually passed off, but she did well the balance of the term and was delivered of a healthy baby.

I frequently administer ingluvin to my patients who are in a pregnant condition and are suffering with nausea and vomiting of a mild degree, and find that it gives very great relief. They gain in weight during its administration, their systems are put in a healthy condition, and they are much better prepared and able to stand the strain of labor than those who have not taken the preparation. Inguvin has, on every occasion, served my purpose well; indeed, far better than anything else I have ever tried.

THE ANODYNE TREATMENT OF ACUTE PERITONITIS.

McCaffrey (*Medical News*) observes that the most pronounced indication for treatment in peritonitis is that for the relief of pain. Blisters and counterirritation, the older resorts, are practically useless; hot water bags and poultices are far superior, but the relief they afford is only temporary. In some cases the ice bag is more grateful than hot applications. But whether heat or cold is employed, it should be relied upon only until other lines of treatment can be instituted. Papine should be given in teaspoonful doses every hour and the doses repeated frequently enough to afford the desired results. Relief from pain, short of narcosis, should be sought, and this is generally easily obtained by proper dosage. Papine does not produce nausea, but rather prevents this symptom. In the event of the development of more or less prostration, a proper stimulant, such as strychnin or nitroglycerin, should be judiciously employed.

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No. 1.

Plea for Detention Hospitals.

NO stronger plea for detention hospitals for the suspected insane was ever made than the report in the daily papers of July 5, of the suicide of one person and the attempted suicide of another, confined in the cells of Police Station No. 1. Both patients were insane, so accepted and so confined, and no charge of criminality or of malfeasance was made against them. Both were locked up in prison cells—to await examination and the proper filling out of the commitment papers—before they could be accepted at the Buffalo State Hospital. On the following day the associated press reported a similar occurrence, in New York city—the suicide of an insane man, committed to a prison cell to await examination, no charge of criminality being lodged against him. The lesson of these three cases is that some place is necessary for the temporary lodgement of the violent insane pending examination. It is unsafe to place them behind prison bars, to say nothing of the injustice of such a proceeding. It is unsafe to place these unfortunates under the care of the average police official, even for a single night. It is equally unsafe to leave them at their homes after homicidal or suicidal tendencies have once appeared. The state hospitals are powerless to aid such cases until all legal requirements are fulfilled. No place open, the prison is the only alternative, with results often as the daily papers have chronicled.

In Erie County if detention hospitals are not forthcoming, such cases might be taken to the Erie County Hospital and there detained until the necessary examination is made. Better still would be a small hospital situated in the new county building on the Terrace, fitted up with hospital appliances and

managed by physicians, such as Superintendent Long of the Poor Office has repeatedly urged.

Agitation of this question should be kept up until the Board of Supervisors sees and feels the necessity of such a place; in the meanwhile the occurrence in Police Station No. 1, speaks more forcibly than words.

Mr. Dooley on the Practice of Medicine.

(From the *Buffalo Sunday News*, July 7th.)

"WHAT'S Christyan Science?" asked Mr. Hennessy.

"'Tis wan way iv gettin' th' money," said Mr. Dooley.

"But what's it like?" asked Mr. Hennessy.

"Well," said Mr. Dooley, "Ye have something th' matther with ye. Ye have a leg cut off."

"Th' Lord save us," exclaimed Mr. Hennessy.

"That is, ye think ye have," Mr. Dooley went on. "Ye think ye have a leg cut off. Ye see it goin' an' says ye to ye-ersilf: 'More expinse. A wooden leg.' Ye think ye've lost it. But ye're wrong. Ye're well as iver ye was. Both legs is attached to ye, on'y ye don't know it. Ye call up a christyan scientist or ye're wife does. Not manny men is christyan scientists, but near all women is, in wan way or another. Ye'er wife calls up a christyan scientist, an' says she: 'Me husband thinks he's lost a leg,' she says. 'Nonsense,' says th' christyan scientist, she says, f'r she's a woman, too. 'Nonsense,' says she. 'No man iver lost a leg,' she says. 'Well, 'tis sthrange,' says the wife. 'He's mislaid it thin,' she says, 'f'r he hasn't got it,' she says. 'He on'y thinks he's lost it,' says th' christyan scientist. 'Lave him think it on again,' she says. 'Lave him rayminber,' she says, 'they'se no such thing in th' wurruld,' she says, 'as pain an' injury,' she says. 'Lave him to put his mind hard to it,' she says, 'an' I'll put mine,' she says, 'an' we'll all put our minds to it, an' 'twill be all r-right,' she says. So she thinks an' th' wife thinks an' ye think th' best ye know how, an' afther awhile a leg comes peepin' out with a complete set iv tootsies, an' be th' time th' last' thought is expinded, ye have a set iv as well-matched gamb's as ye iver wore to a picnic. But ye mustn't stop thinkin' or ye'er wife or th' christyan scientist. If wun iv ye laves go th' rope, th' leg 'll get discouraged an' quit growin.' Manny a man's sprouted a

limb on'y to have it stop between th' ankle an' th' shin because th' christyan scientist was called away to see what ailed th' baby."

"Sure, 'tis all foolishness," said Mr. Hennessy.

"Well, sir, who can tell?" said Mr. Dooley. "If it wasn't f'r medical progress, I'd be sure th' christyan scientists was wrong. But th' doctor who attinded me whin I was young 'd be thought as loonatical if he was alive today, as th' mos' christyan scientist that iver rayjooiced a swellin' over a long distance tillyphone. He inthrajooiced near th' whole parish into this life iv sin an' sorrow, he give us calomel with a shovel, bled us like a polis captain, an' niver thought anny medicine was good if it didn't choke ye goin' down. I can see him now as he come up dhriven' ol' gray an' yellow horse in a buggy. He had whiskers that he cud tie in a knot round his waist, an' him an' th' priest was th' on'y two men in th' neighborhood that carried a goold watch. He used to say 'twas th' healthiest parish in th' wurruld, barrin' hangins an' thransportations an' thim come in Father Hickey's province. Ivrybody thought he was a gr-eat man but they wudden't lave him threat a spavin in these days. He was catch-as-catch-can n' he'd tackle annything fr'm pneumony iv th' lungs to premachure baldness. He'd niver heerd iv mickrobes an' nather did I till a few years ago whin I was tol' they was a kind iv animals or bugs that crawled around in ye like spiders. I see pitchers iv thim in th' pa-apers with eyes like poached eggs till I dhreamed wan night I was a hayloft full iv bats. Thin th' dock down th' sthreet set me r-right. He says th' mickrobes is a vigitable an' ivry man is like a conservatory full iv millyons iv these potted plants. Some ar're good f'r ye an' some ar're bad. Whin th' chube roses an' geranyums is flourishin' an' liftin' their dainty petals to th' sun, ye're healthy, but whin th' other flower gets th' best iv these nosebags, 'tis time to call in a doctor. Th' doctor is a kind iv gardiner f'r ye. 'Tis his business f'r to encourage th' good mickrobes, makin' two pansies grow where wan grew befure an' to hoe out th' Canajeen thistle an' milk weed.

"Well, that sounds all r-right, an' I sind f'r a doctor. 'Dock,' says I, 'me vilets ar-re thinnin' out an' I feel as though I was full iv sage brush,' I say. Th' dock puts a glass chube in me mouth and says, 'Don't bite it.' 'D'ye think I'm a glass eater?' says I, talkin' through me teeth like a Kerry lawyer.' What's it f'r?' I says. 'To take ye're timprachoor, says

he. While I have th' chube in me mouth he jabs me thumb with a needle an' laves th' room. He comes back about th' time I'm r-ready to sthrangle an' removes th' chube. 'How high does she spout?' says I. 'Ninety-nine,' says he. 'Good hivens,' says I. 'Don't come near me, dock, or ye'll be sun sthruck,' I says. 'I've just examined ye'er blood,' he says. 'Ye're full iv weeds,' he says. Be that time I'm scared to death, an' I say a few prayers, whin he fixes a hose to me chest an' begins listenin'. 'Amnything goin' on inside?' says I. 'Tis ye'er heart,' says he. 'Glory be,' says I. 'What's th' matther with that ol' ingine?' says I. 'I cud tell ye,' he says, but I'll have to call in Dock Vinthricle, th' specialist,' he says. 'I oughn't be lookin' at ye'er heart at all, he says. I niver larned below th' chin an' I'd be fired be th' union if they knew I was wurrukin' on th' heart,' he says. So he sinds f'r Dock Vinthricle an' th' docks climbs me chest an' lishtens an' thin he says: 'They'se something th' matther with his lungs, too,' he says. 'At times they're full iv air, an' again,' he says, 'they ain't,' he says. 'Sind f'r Bellows,' he says. Bellows comes an' pounds me as though I was a roof he was shinglin', an' havin' accidentally hit me below th' belt, he sinds f'r Dock Laporattemy. Th' Dock sticks his finger into me as far as th' knuckle. What's that f'r?' says I. That's O'Hannigan's point,' he says. 'I don't see it,' says I. 'O'Hannigan must have had a fine sinse iv humor.' 'Did it hurt?' says he. 'Not,' says I, 'as much as though ye'd used an awl,' says I, 'or a chisel,' I says, 'but,' I says, 'it didn't tickle,' I says.

"He shakes his head an' goes out iv th' room with th' others an' they talk it over at tin dollars a minyit while I'm layin' there at two dollars a day—docked. Whin they come back, wan iv thim says: 'This here is a mos' inthrestin' case an' we must have th' whole class take a look into it,' he says. It means me, Hinmissy. 'Dock,' he says, 'ye will remove it's brain. Vinthricle, ye will have it's heart, an' Bellows, ye will take it's lungs. As f'r me,' he says, 'I will add wan more vermiform appendix to me belt,' he says. 'Tis sthrange how our foolish pre-decessors,' says he, 'niver got onto the dangers iv th' vermiform appendix,' he says. 'I have no doubt that that's what kilt Methausalem,' he says. So they mark out their wurruk on me with a piece iv red chalk an' if I get well, I look like a rag carpet. Sometime they lave things in ye, Hinmissy. I knowed a man wanst, Moriarty was his name—Tim Moriarty,

an' he had to be hem-stitched hurriedly because they was goin' to be a ball game that day an' they locked up in him two sponges, a saw, an ice pick, a goold watch an' a pair iv curlin' irons belongin' to wan iv th' nurses. He tol' me he didn't feel well, but he din't think anything iv it till he noticed that he jingled whin he walked.

That's what they do with ye nowadays, Hinnissy. Ivry time I go into Dock Cassidy's office, he gives me a look that makes me wisht I'd wore a suit iv chain armor. His eyes seem to say, 'Can I come in?' Between th' christyan scientists an' him 'tis a question iv whether ye want to be threatad like a loonytic or like a can iv presarved vigitable. Father Kelly says th' styles iv medicine changes like th' styles iv hats. Whin he was a boy, they give ye quinine f'r whatever ailed ye, an' now they give ye sthrychnine an' nex' year they'll be givin' ye proosic acid, maybe. He says they're findin' new things th' matther with ye ivry day, an' ol' things that have to be taken out, ontill th' time is comin' whin not more thin half iv us'll be rale an' th' rest'll be rubber. He says they ought to enforce th' law iv assault with a deadly weepin' again th' doctors. He says that if they knew less about pizen an' more about gruel an' opened fewer patients an' more windows, they'd not be so manny christyan scientists. He says th' diff'rence between christyan scientists an' doctors is that christyan scientists thinks they'se no such thing as disease an' doctors thinks there ain't annything else. An' there ye ar-re."

"What d'ye think about it?" asked Mr. Hennessy.

"I think," said Mr. Dooley, "that if th' christyan scientists had some science an' th' doctors more christyanity, it wouldn't make anny diff'rence which ye called in—if ye had a good nurse."

Some Medical Aspects of the Pan-American Exposition.

(From Boston Medical and Surgical Journal, July 18 and 25, 1901.)

THE Pan-American Exposition presents certain features of particular interest to medical visitors, which, however, are so widely scattered that many of them are overlooked by the casual observer, who has no official guide to their location. Hence a brief mention of their whereabouts and special points of interest may be of value.

The Emergency Hospital, supported from the funds of the exposition and treating its cases gratuitously, is located immediately on the right of the West Amherst street gate,

through which the majority of visitors enter the exposition grounds. It is an artistic little building of cream-colored staff, topped off with a dull red roof. It was erected early in the process of constructing the fair, to meet the medical and surgical emergencies contingent on the presence of a large number of workmen, many of them engaged in more or less hazardous callings. Its functions are confined purely to emergency work, and any severe cases received during the day are transferred to the Buffalo General Hospital, or other points outside the grounds, if prolonged treatment is required. No cases are allowed to remain over night in the Emergency Hospital, and no venereal cases are treated therein. The institution has a capacity of 26 beds, and includes a small dispensary fitted up with a few simple remedies, a surgical dressing-room, an excellent little operating-room, and a small diet kitchen. It is admirably administered under the supervision of Dr. Roswell Park, the Medical Director of the Exposition, whose surgical abilities are well known to the profession, assisted by Dr. Verner Kenerson, both of whom visit the institution one or more times daily. The personnel of the hospital consists of six young physicians who act as the house staff, and two of whom are constantly on duty. Four nurses constitute the nursing staff. The hospital supports an ambulance service, consisting of one automobile ambulance, the drivers of which are medical students from the University of Buffalo.

Up to the present time, the hospital has treated about 2,200 cases, of which about 700 were surgical. At present most of the cases requiring attention are of a medical nature and are of trivial character, about 30 cases being treated daily. The majority of these cases are of a diarrheal nature and are furnished by the employees of the large foreign concessions in the Midway, such as the "Streets of Cairo," "Indian Congress," "Filipino Village," etc. One member of the house staff usually visits these larger concessions daily, to ascertain the presence of any cases needing medical attention. So far, the professional work has been very light. A few deaths and seven accidents occurred as a result of falls by workmen during erection of the exposition buildings, and, as was to be expected in a fair where electricity is made such a prominent feature, several fatal accidents among the workmen have occurred from contact with defectively insulated electric conduits. Scarcely any cases of sunstroke and heat exhaustion have as yet occurred, even during the hot wave which recently prevailed over the eastern part of the United States. Cool lake breezes are a pleasant feature of Buffalo summer climate and seem to substantiate the claim that Buffalo is the coolest city in the Union during the summer. There has not been a night this season when the visitor would not require the use of a blanket to sleep in comfort. Mosquitoes and flies are almost unknown in Buffalo, and the visitor is certain to be free from their annoyance. To return to the subject of the Emer-

gency Hospital, it may be said that while this institution possesses no unusual features to those acquainted with hospital service, its equipment is of the most modern type, and its neatness and order, together with the efficacy of its service, reflect much credit upon those in charge.

INFANT INCUBATORS.

A few steps from the Emergency Hospital is a building which somewhat resembles this institution in appearance. It is the building of the "Infant Incubators," which a "barker," in high hat and frock coat terms "the only scientific attraction on the Midway. The Qbata Company, which controls this concession, appears to be coining money, for, strange as it may seem, this attraction is one of the most popular on the Midway. Its patrons are not only those who have a professional interest in the subject, but also a large proportion of the curious, particularly those of the feminine persuasion. As the "barker" says, "there is nothing improper in the exhibit," but his statement that there is "a whole houseful of infants," must be taken with the usual Midway grain of salt. Inside, the visitor is ushered into a large room, with impermeable walls and floor, railed off around the walls. There are about a dozen of the Qbata incubators, something more than half of which are usually occupied by small mites of humanity prematurely introduced to the world. The incubator consists of a nickel frame with glass sides, making a box about two feet square, to which access is had by a door in front. The infant neatly bundled up, lies on a small mattress supported on springs so delicate that the whole frame gently oscillates with every movement, even the breathing of the child.

The temperature in the incubator is regulated by a thermostat, which maintains a constant temperature of about 26° C., the necessary warmth being supplied from water pipes running from a small tank heated by an oil lamp. Ventilation of the incubators is secured by small aspirating fans, the incoming air being rendered sterile by filtration through cotton. Wet nurses provide nature's food for the sustenance of the infants, the latter being removed from the incubators and fed every two hours, weighed, and the cleanly condition of their linen verified. This is done in a small nursery, adjoining the incubator room, which is fitted up with bath tubs, baby baskets, and the like, in a way to satisfy aseptic ideas and delight the esthetic. A chart on each incubator shows the age, sex, weight, temperature and period of gestation of each child. One small morsel of humanity on exhibition was stated to have weighed 2 lbs., 4 oz. on entrance and to have gained 5 oz. in about a fortnight's sojourn in the incubator. The period of gestation of nearly all the infants is stated as about seven months. The appearance of some of the infants would appear to justify this statement, though it would require a slight elasticity of the professional imagination to believe this with regard to others. The supply of infants is

recruited from Buffalo and vicinity, they being cared for gratuitously by the Qbata Company. I was informed that a premature arrival in a family prominent in Buffalo society and a small pappoose from the Indian Congress were admitted on the same day.

The Qbata Company claims that 85 per cent. of viable infants may be saved by their incubators. The question naturally presents itself as to whether this is worth while; whether the race as a whole does not suffer from the preservation of these weaklings to perpetuate their kind. Medical science is a little illogical in respect to the results obtained, and in its efforts to preserve the individual it forgets to consider the effects of such action upon the race as a whole. Every stock raiser appreciates the necessity of healthful environment, abundant food and fresh air in maintaining a breed of animals in a state of high physical development; and sanitary science insists upon the necessity of these conditions for the physical uplifting of the human race. The stock raiser, however, breeds only from the most sound, healthy and perfect animals, and thus secures a physical conformation and constitution upon which conditions of environment can act most advantageously. Medical science, on the other hand, does not hesitate to undo the advantages gained by the hygienic rules it has promulgated, by preserving the weakling, the deformed and the tuberculous, and placing these defectives—who would otherwise surely have perished in an active struggle for existence—in a condition to transmit their deficiencies, deformities and vices to generations as yet unborn. Certainly, in regard to the physical standard of the human race, the medical profession is in the position of tearing down with one hand while it builds up with the other.

On the whole, the exhibit of infant incubators furnishes much food for reflection and is well worth the cost of admission. The concession is well cared for and everything about it is kept neat, clean and attractive, and elicits the commendation of visitors in this respect. I suspect that the general opinion in regard to the infants themselves is fairly well expressed by the Englishman whom I overheard remark as he emerged from the incubator room, "Only fancy commencing life as a Midway exhibit, don't you know!"

A CRECHE NEEDED.

In my last letter a description was given of the Exposition Emergency Hospital and the "infant incubators" on the Midway. From the latter subject to that of the care of young children accompanying older persons visiting the fair the transition is easy. At present a "crèche," where tired mothers may safely leave their children, is much needed.¹ The Children's Building at the south end of the Midway, originally intended for this purpose, has been converted into headquarters for representatives

1. A Crèche has been established.—ED. B. M. J.

of the press, for which latter purpose its location and size render it particularly suitable. There has been some talk of establishing nursery tents at each of the main entrances to the grounds, but as yet nothing has been done in this respect, nominally from lack of funds. The matter is one which merits the serious attention of the exposition authorities, and any additional cost resulting from the operation of these nurseries would probably be more than repaid by an increase in the gate receipts. With the poorer classes the mother frequently cannot take an outing unless accompanied by her children, from lack of anyone who can be relied upon to care for them during her absence. If the exposition provided places where infants might be safely left, the fair would undoubtedly be patronised to a greater extent by mothers of this class. Sightseeing on a warm day while carrying a baby in arms is not conducive to enjoyment on the part of the tired and overworked mother nor good temper and health on the part of the unfortunate infant exposed to the heat, noise and crowds.

Crossing the Midway the average medical visitor proceeds to the beautiful court of fountains, and turns his steps toward the exhibition made by various departments of the government, well called the "back-bone of the exposition." On his way he will very likely visit the Ethnology Building, which contains an ethnological display which, though not large, is of unusually high character. In this building the medical men interested in anthropology will find a certain display on this subject worthy of attention, chiefly among the exhibits in the gallery.

PURE FOOD EXHIBIT.

In the exhibit of the Department of Agriculture, located next the Ethnology Building, in the annex on the right of the main Government Building, the display made by the section on foods will prove of much interest to the medical man. This exhibit is in charge of Dr. Stewart of the Bureau of Animal Industry, and occupies one-fourth the floor space of the building, being located immediately west of the main entrance. Much space is devoted to the subject of adulteration of foods, and numerous specimens, tastefully arranged in jars, are used to illustrate the appearance of some of the more common articles of food, both pure and after adulteration by some of the more common methods. The exhibit is particularly rich in its display relative to the adulteration of spices. An interesting series of specimens illustrates the various grades of canned fruits and vegetables, from the highest quality down to the watered and reprocessed article billed by the dishonest tradesman as "first quality." The artificial coloration of various foods is shown; also the crude material from which these pigments are obtained, and the special forms in which they are employed commercially. One test tube shows 10 gr. of copper recovered from a single 1 lb. can of string beans. The possibility of tin poisoning is illustrated by 5 gr. of stannous oxide recovered from a 1 lb. can of tomato soup.

An excellent series of food preservation is shown in glass containers, each bearing the chemical analysis of the contained article and the actual market cost of the materials, together with the selling price. Such remarks as "formaldehyde solution; retail price, \$1.00 per gallon; value of materials less than 4 cents," point their moral very concisely. One cannot but wish that the Government would follow the example of the German authorities in respect to patent medicines and proprietary nostrums, and publish the formulæ and ingredients of all such preparations, together with their cost of preparation at market rates for materials. The fortunes amassed by many of the concerns controlling patent medicines of certain therapeutic efficiency undoubtedly depend upon secrecy of preparation; for the hard-headed citizen can scarcely be expected to spend a dollar for a ready-made article when he can have the same thing put up at the corner drug-store for half the money. The enactment of a law requiring all manufacturers of patent medicines to print the formula upon the label is respectively submitted as worthy of the best efforts of the profession in respect to future legislation.

An interesting exhibit in connection with the artificial preservation of food is seen in a collection of tubes displaying quantities of salicylic acid and other substances recovered from small quantities of food stuffs preserved by their agency. Half a test tubeful of salicylic acid is shown as having been recovered from a single tin of canned soup—and one is moved to marvel that cases of poisoning from preserved food stuffs are not more common than they are. "Preservative,"—a combination of boric acid and salt, colored with cochineal,—made famous in the army beef controversy, is here given a prominent place. One of the exhibits among the jams and preserves is labelled: "Strawberry Jam." Sweetened with glucose, stiffened with starch, colored with an aniline dye, preserved with benzoic acid and artificially flavored." The strawberry part of this delectable compound apparently exists in the imagination alone. It is highly unfortunate that the exhibit does not specify the particular brands and give the manufacturers' names of the articles whose analysis are displayed, so that the observer might not only appreciate the extent to which food adulteration is practised, but might know what brands to avoid in making future purchases. Those whose greed is such as to render them willing to injure the public health to more quickly fill their purses should be publicly pilloried and made to suffer the financial loss which would follow exposure of their nefarious practises.

An interesting series of "wines," made by fermenting glucose, colored with aniline dyes and preserved with salicylic acid, is also on exhibition. It is stated that these "wines" are sold to the trade at from 25 cents to 35 cents per gallon.

A large case in the centre of the building contains a bomb calorimeter, used for the determination of the force or fuel

value of food stuffs. The same case also contains a model of Atwater's respiration calorimeter, as used by him in his investigations on nutrition at Wesleyan University.

MEAT EXAMINATION.

In the Bureau of Animal Industry, a feature which attracts the attention of crowds, is the microscopic examination of pork for trichinæ and other parasites, as carried out by the Department of Agriculture at the large packing houses. A small laboratory is here fitted up, in which three young women make these microscopical examinations in the presence of the visitors, and exhibit samples of infected meat. Nearby an interesting series of pathological specimens, both wet and artificial, showing various types and lesions of disease in the animals used as food, will prove interesting to all medical men, and is well worthy of careful study by health officers and those who have to do with food inspection. This exhibit is supplemented by a large series of lantern slides, showing bacteria, pathogenic lesions, etc.

Many artificial preparations illustrate the method of infection and pathologic changes in Texas fever, the investigations into the cause and nature of which by the Agricultural Department formed the entering wedge which opened the way to a wider knowledge of the transmission of disease by insects, the latest triumph of scientific medical research. A small but completely equipped biologic laboratory is also shown in this section; also various protective and curatives are, and illustrations of the steps in their preparation. The municipal health officer will find much to interest him in the nearby display of sanitary dairy cans, bottles and utensils; and the photographs, illustrating the sanitary methods now employed in the best class of dairies to minimise the danger of transmitting disease by their products.

Before leaving this exhibit the physician, who naturally has much to do with horses, will find it of advantage to inspect the case illustrating the causes of lameness in horses, proper and improper methods of shoeing, and the like. The knowledge to be obtained in a few minutes from this exhibit will be of much practical value, and may save suffering on the part of the animal and money and annoyance to the owner.

MEDICAL DEPARTMENTS OF ARMY AND NAVY.

Proceeding through the connecting arcade to the main Government Building the professional visitor will find much to interest him in the exhibits made by the medical departments of the Army and Navy and of the Marine Hospital service.

The exhibit of the Medical Department of the Army—the largest single exhibit of any character in the entire exposition—consists of a model brigade field hospital, lack of suitable floor space in the Government Building having rendered any indoor display commensurate with the importance of the department, quite impossible. While the present exhibit is most admirable

so far as it goes, it is to be regretted that the Army Medical Department, with its magnificent museum, Surgeon-General's library and completely equipped laboratories to draw upon for exhibits, did not have the opportunity of demonstrating its resources and the magnitude and value of its work by an indoor display. It is understood that but 400 feet of inside space was placed at the disposal of the department, so that probably the latter did wisely in refusing to make an indoor exhibit which could not be representative.

The brigade field hospital tents are located on the large plot immediately south of the arcade between the Fisheries and main Government Buildings, and are much visited, not only by physicians, nurses and military men, but also by a large class who have—or who have had—friends or relatives in the regular or volunteer armies, and are interested in the care of the sick soldier in the field. The hospital has a capacity of 100 beds—or a proportion of about 2 per cent. from a command of 5,375 maximum war strength—and is completely equipped for field service down to the last authorised dose of medicine and tent peg. The purpose of the exhibit is to leave nothing to the imagination of visitors, but to demonstrate the equipment of the medical department in respect to the brigade hospital unit, in quantity, size and capacity, as well as in variety and quality. The exhibit is peculiarly unique and attractive, since the equipment displayed is largely composed of the articles lately incorporated in the supply table of the medical department, as a result of the labors of a board of medical officers who were engaged for nearly two years on the improvement of the hospital equipment and medical supplies. Nearly all the important articles here shown have been adopted by the medical department within the past twelve months, and the exhibit as a whole undoubtedly represents a much more modern and complete equipment for the care of the sick and wounded in the field than could be shown by any other army in the world. Medical men will be most favorably impressed by this exhibit, with the resources and progressiveness of the Army Medical Department. The hospital tent wards of this exhibit are pitched in the form of a cross, with a central covered space. The medical and surgical tents, office, mess and kitchen tents are located within the arms of the cross, presenting an arrangement not only attractive and compact, but so devised as to afford the casual visitor a good idea of army medical service in the field with the minimum expenditure of time and effort.

The dispensary tents contain drugs and medicines in such quantities, varieties and proportions as military experience, since the outbreak of the war with Spain, has shown to be required for a brigade of maximum war strength, under conditions of field service, for a period of ninety days. The new model medical chest displayed in this tent is a marvel of simplicity and compactness, and should prove of special interest to medical officers of the state troops. Weighing only about eighty-five pounds,

it yet contains an abundance of medicines and medical supplies for a regiment for three months. This chest forms one of the regimental set of three field chests,—the medical, surgical and steriliser,—one chest of which can be carried by a single coolie, two can be carried on a litter, and the whole three of which may be carried on a pack mule. The brigade hospital reserve supply of medicines is shown in bulk in the original bottles, but the hospital corps man in charge explained a simple method of packing such reserve medicines which would be used in the future; the method depending on the issue of medicines in bottles of standard sizes and shapes, four small bottles making a packet of the same proportions and size as one large bottle, and doing away with the necessity for the use of partitions or packing materials in the containing chests, to prevent breakage. The ward tents used in the exhibit are of the new model Munson hospital tent pattern, recently adopted by the medical department, as a result of exhaustive trial in the United States and in the tropics, as being much superior to the old hospital tents, formerly employed for the shelter of the sick. The wards are very cool and attractive, the tents are admirably ventilated, and the subdued light and seclusions these tents afford must be very grateful to the sick soldier. One is struck by the remarkable economy of space, transportation and labor possible by the new method of packing the hospital furniture and equipment. A complete outfit of cots, chairs and tables for each tent, allowance of six patients, goes in a single small chest, while all the bedding, pajamas, mosquito bars, and the like, pack in a single canvas bag—thus saving the necessity of opening numerous chests and boxes to secure the various articles necessary to outfit the tent on establishing the hospital. In the covered space between the four wards an extremely interesting series of photographs is displayed, illustrating actual field work of the medical department in transportation of wounded, first aid and field surgery, and hospital establishment.

IT WAS a most excellent plan to establish “comfort stations” at available points, even of a temporary kind, and it was a senseless act to remove them because a few hyperesthetic individuals objected to them on account of their unsightliness. A large city like Buffalo, with the increased temporary population during the exposition period, would be guilty of a breach of civility did it not provide such accommodations, and the question of architectural beauty might well remain in abeyance until the emergency of the season had passed.

We do not attempt to defend the weak policy of spending several thousand dollars in establishing ugly temporary stations, when comely permanent ones should have been provided long

ago. Our design is rather to point out not only the absurdity of listening to objectors to the temporary stations now established, but also the equally reprehensible policy of spending money unnecessarily on structures that soon must give place to better ones. Action should have been taken long ago and the city made respectable by the erection of properly constructed accessible stations.

THE extreme heat of the present summer that has pervaded the whole country has been trying in Buffalo for many days; but with an extreme temperature of 91° and rarely going above 90° , we have less to complain of than most of the large cities. Fortunately, no lives have been lost up to the present writing resultant from heat stroke. One of the commendable innovations introduced this season is hats for horses which have now come into common use for work teams. A wet sponge on the top of the head is a great relief to a work horse and undoubtedly has saved the lives of many useful animals. The Erie County Society for the Prevention of Cruelty to Animals and the veterinary surgeons agree in endorsing the utility of this valuable protection to animals. The hats are very inexpensive, costing 35 cents.

DR. DANIEL LEWIS, state commissioner of health, has secured a building in Albany for the establishment of a state antitoxin laboratory. Dr. H. D. Pease, of the Sheffield Scientific School, Yale University, has been appointed director of the new laboratory. The animal house, it is expected, will be provided with the most perfect hygienic conditions attainable for such purposes and will be supplied with about 15 horses for the manufacture of serum. Dr. Pease will be assisted in the work by five trained assistants. In discussing the subject recently, Dr. Lewis said:

The importance of this laboratory to the people of the state can hardly be overestimated. The commissioner of health proposes to supply state institutions with diphtheria and other antitoxins free of cost and also furnish these remedies to municipalities which are not already provided with a similar laboratory, for parents who are unable to buy them.

Antitetanus and antityphoid serums will also be manufactured in the laboratory. Health officers throughout the state can now secure from the state department examination of cultures from diphtheria patients, thus verifying a diagnosis as well as demonstrating when a diphtheria patient has so far recovered as to be allowed out of quarantine.

The sputum from cases of pulmonary tuberculosis is also examined by Dr. Blumer, director of the bureau of pathology and bacteriology of the department. These new departments, therefore, are intended to supply to all the health officers throughout the state the same facilities for investigation, diagnosis and treatment of infectious diseases as are now supplied by the city of New York.

THE Ohio State Board of Medical Registration and Examination has obtained from the Supreme Court of Ohio an important decision which establishes its right to determine whether a medical college is in good standing. The board threw out the diplomas of the Hygea Medical College of Cincinnati, whereupon the college applied for a writ of mandamus compelling such recognition. The court sustained the board, the decision in effect being that a writ of mandamus will not issue, on the relation of a medical college, to compel the State Board of Medical Registration and Examination to recognise the college as a medical institution in good standing, nor to compel the board to issue certificates to practise medicine in that state, to holders of diplomas from such college. Decided March 26, 1901.

This decision will establish the Ohio board on a firm foundation, and the precedent thus created will strengthen the hands of boards in other states.

PERSONAL.

DR. ADAM H. WRIGHT, of Toronto, editor *Canadian Practitioner and Review*, recently spent three months in Europe. He gives an interesting account of affairs, medical and otherwise, in Great Britain and on the continent, in his magazine for July, 1901.

DR. A. A. HUBBELL, of Buffalo, for several years associate editor of this journal, has resigned from the editorial staff, on account of increasing professional demands upon his time. Dr. Hubbell is an efficient worker in the field of medical periodical literature from whom we part with regret.

DR. LORENZO BURROWS, JR., of Buffalo, has been elected by the staff of the Buffalo General Hospital, as ophthalmologist to that institution to fill the vacancy created by the death of Dr. Frank W. Abbott. Dr. Burrows also has been appointed

ophthalmologist and otologist at the Fresh Air Mission Hospital, located at Athol Springs, on the Lake Shore.

DR. ERNEST L. RUFFNER, of Buffalo, has been appointed, after due examination, an assistant surgeon (first lieutenant) in the U. S. Army, and has been assigned to temporary duty at Columbus, O. Dr. Ruffner held a similar position in the 65th Regiment N.Y. Vols., during the war with Spain, with the rank of captain. On advertising page xxiv., will be found an offer by Dr. Ruffner to sell an electrical battery.

DR. JULIUS ULLMAN, of Buffalo, sometime ago was appointed instructor in clinical medicine and assistant in the bacteriological laboratory at the University of Buffalo. Through oversight in preparing copy for the printer, Dr. Ullman's name was omitted from the college announcement for 1901. Dr. Ullman has not been dropped from the list, but he still continues to perform the functions above named.

DR. R. T. ROLPH, of Castle Creek Sanitarium, Hot Springs, Arizona, formerly of Dunkirk, N.Y., is spending a few weeks at his old home. Incidentally, he is occasionally paying a visit to the Pan-American exposition at Buffalo, and the JOURNAL is pleased to welcome him among its many Pan-American visitors.

DR. B. T. WHITMORE, of New York, who has for so many years been associated with Messrs. Parke, Davis & Co., in their scientific department, recently went to Europe to attend the British Tuberculosis Congress. In the early part of the season Dr. Whitmore and his family visited the Pan-American exposition at Buffalo, where a number of delightful days were passed.

DR. J. N. HURTY, of Indianapolis, secretary of the State Board of Health of Indiana, recently spent a week or two at Buffalo for rest and recuperation, and incidentally to see the Pan-American exposition. He was accompanied by his wife and son.

DR. THOMAS E. SPALDING, U. of B., '01, has located for the practice of his profession at Salamanca, N.Y.

DR. L. G. HANLEY, of Buffalo, president of the medical staff of the Hospital of the Sisters of Charity, lately went to Emmettsburg, Md., to attend the opening of the Normal Hospital of the

Sisters of Charity in that city. Prominent physicians from New York, Chicago, St. Louis and other cities were present. Dr. Hanley during his visit of a week delivered a course of lectures at the hospital.

DR. WILLIS G. GREGORY, of Buffalo, has established a truss department at his pharmacy in The Genesee, 530 Main Street, where special attention will be given the important work of truss-fitting in all its various phases.

DR. MARGARET A. CLEAVES, of New York, has recently been appointed the American editor of the *Journal of Physical Therapeutics*, a Quarterly International Review published at London.

DR. J. D. GRIFFITH, of Kansas City, president of the Missouri State Medical Association, visited Buffalo and the exposition recently. Dr. Griffith is one of the prominent surgeons of the west and has promised to visit Buffalo again before the exposition closes.

GOVERNOR-GENERAL WOOD, of Cuba, who has been afflicted with typhoid fever, is reported convalescent. He will visit the United States and spend a few weeks in New England for recuperation.

OBITUARY NOTES.

DR. AARON NELSON BRAMAN, U. of B., '51, died at his home in Rochester, N.Y., July 6, 1901.

DR. WILLIAM H. GOBRECHT, of Washington, D.C., died in that city July 19, 1901, aged 72 years. He was surgeon of the 49th Pennsylvania Volunteer Infantry during the civil war, and served for a portion of the time as surgeon-in-chief of Hancock's brigade in the second division (Smith's) of the sixth army corps. Dr. Gobrecht was an accomplished surgeon and an anatomist and edited the first editions of Wilson's Anatomy.

SOCIETY MEETINGS.

THE American Association of Obstetricians and Gynecologists will hold its fourteenth annual meeting at the Hotel Hollenden, Cleveland, O., Tuesday, Wednesday and Thursday, September

17, 18 and 19, 1901, under the presidency of Dr. William E. B. Davis, of Birmingham, Ala. The committee of arrangements is composed of Dr. M. Rosenwasser, 722 Woodland Avenue and Dr. William H. Humiston, 122 Euclid Avenue, Cleveland, either of whom may be addressed concerning rooms or other local information regarding the meeting.

The following list of papers is offered:

1. The president's address, William E. B. Davis, Birmingham.
2. Indications for the combined vagino-abdominal operation of hysterectomy, Rufus B. Hall, Cincinnati.
3. Title to be announced, Henry D. Ingraham, Buffalo.
4. A method for suspension of the uterus, Robert T. Morris, New York.
5. Tubercular peritonitis, experimental and clinical, John B. Murphy, Chicago.
6. Report of a case of acute pancreatitis and fat necrosis, Edward J. Ill, Newark.
7. Pelvic and abdominal tumors complicating pregnancy, with report of cases, Rufus B. Hall, Cincinnati.
8. Pathology and treatment of hourglass stomach, with report of two cases, Charles G. Cumston, Boston.
9. Early operations in appendicitis and method, Joseph Price, Philadelphia.
10. Title to be announced, J. Henry Carstens, Detroit.
11. The undeveloped uterus, C. L. Bonifield, Cincinnati.
12. An interesting case of tubo-abdominal pregnancy, Wm. H. Humiston, Cleveland.
13. Title to be announced, Walter B. Dorsett, St. Louis.
14. Title to be announced, C. C. Frederick, Buffalo.
15. Report of a case of ruptured tubal pregnancy, Webb J. Kelly, Galion, O.
16. Diseases and injuries of the cervix uteri and their treatment, Joel W. Hyde, Brooklyn.
17. Title to be announced, L. H. Dunning, Indianapolis.
18. Title to be announced, James F. W. Ross, Toronto.
19. Extrauterine pregnancy; report of cases with specimens, George S. Peck, Youngstown.
20. Is Cesarean section justifiable in placenta previa? E. Gustav Zinke, Cincinnati.
21. Title to be announced, Edwin Walker, Evansville.
22. Some reflections on ectopic gestation, David Tod Gilliam, Columbus.

23. Some forms of disease involving the uterine appendages, Augustus P. Clarke, Cambridge.

24. The mechanical, or combined plastic and mechanical treatment of retrodeviations of the womb, M. Rosenwasser, Cleveland.

25. Title to be announced, H. E. Hayd, Buffalo.

26. New method of opening the abdomen in gynecological surgery, Charles G. Cumston, Boston.

27. A second contribution to the surgery of gastric ulcer, Henry Howitt, Guelph, Ont.

THE American Electro-therapeutic Association will hold its eleventh annual meeting at Buffalo, Tuesday, Wednesday and Thursday, September 24, 25 and 26, 1901, under the presidency of Dr. Ernest Wende, of Buffalo. The meetings will be held at the Armory of the 74th Regiment, and the headquarters of the association will be established at the Niagara Hotel, where rates for rooms are \$2.00 and upwards a day for one person, and members are advised to secure their rooms without delay. Dr. Henry R. Hopkins, 433 Franklin Street, Buffalo, is chairman of the committee of arrangements, and he should be addressed concerning information desired with reference to the meeting.

THE Homeopathic Medical Society of the State of New York will hold its semiannual meeting at Buffalo during the last week in September, 1901. To give all in attendance ample opportunity to attend the meetings and yet see the exposition, it has been arranged to hold three half-day sessions, from 9 a.m. to 1 p.m., thus allowing the afternoon and evening for recreation and sightseeing. The place of meeting will be one of the hotels adjacent to the exposition grounds.

THE National Association of Homeopathic Members of Examining Boards held its eleventh annual meeting at Richfield Springs in conjunction with the meeting of the American Institute of Homeopathy. Papers and reports were presented by fifteen state examining boards, the subjects outlined therein for consideration covering a wide range of thought bearing on the practical working of state control of medical licensure.

The officers elected for the ensuing year are as follows: President, A. Korndorfer, Philadelphia; secretary, H. M. Paine, Atlanta; treasurer, E. Cranch, Erie. These officers and S. H.

Calderwood, of Boston, and V. H. Hallman, of Hot Springs, Ark., constitute the executive committee.

THE Medical Society of the Missouri Valley will hold its fourteenth annual meeting at St. Joseph, on Thursday, September 19, and at Eureka Springs, Friday and Saturday, September 20 and 21, 1901. V. L. Treynor, of Council Bluffs, Iowa, is president, and Charles Wood Fassett, of St. Joseph, Mo., is secretary.

ALL members desiring to contribute to the program of the Buffalo Academy of Medicine for the session 1901-1902 are requested to communicate with the officers of sections, as announced below: Section of medicine—chairman, Julius Ullman; secretary, A. E. Woehnert, 155 Allen St. Section of surgery—chairman, H. R. Gaylord; secretary, H. C. Rooth, 350 Ashland Ave. Section of obstetrics—chairman, Thos. F. Dwyer; secretary, W. Mansperger, 1003 Main St. Section of pathology—chairman, Grover Wende; secretary, Irving P. Lyon, 531 Franklin St. Section of ophthalmology, otology, etc.—chairman, Elmer G. Starr; secretary, Arthur G. Bennett, 26 Allen St.

The council would appreciate the assistance of members in securing the services of out-of-town men of note in the profession to participate in the program. Chas. G. Stockton, President; F. W. McGuire, 1540 Main street, secretary.

THE Chautauqua County Medical Society held its annual meeting at Chautauqua, N. Y., in the Hotel Athenæum, July 9, 1901. In the morning, at 11 o'clock, was held the business session at which the following officers were elected for the ensuing year: President, E. A. Scofield, of Bemus Point; vice-president, N. E. Beardsley, of Dunkirk; secretary, C. A. Ellis, of Sherman. Dr. W. S. Bainbridge was first elected president, but declined the honor.

In the afternoon at 2 o'clock a scientific session was held and the following program was observed: The president's annual address, E. A. Scofield; Skin cancers, E. S. Rich; Locomotor ataxia, H. F. Hunt; Tubercular osteitis, McDonald Moore; Cardiac and vaso-motor sedatives, C. W. Southward; The Chautauqua County Medical Society, a retrospect, N. G. Richmond. After the regular program, interesting cases were reported and discussed.

THE American Public Health Association will hold its twenty-ninth annual meeting Monday to Friday, September 16, 17, 18, 19 and 20, 1901, at the armory of the 74th Regiment. The headquarters of the association will be at the Niagara Hotel.

Dr. Henry R. Hopkins, chairman of the committee of arrangements, announces that this place will make for the comfort of those in attendance and the efficiency of the deliberations of the association, that the location is easy to reach, overlooking the waters of Erie and Niagara, well shaded, cool and free from the noises and distractions of the center of the city.

The committee is informed that transportation to and from Buffalo, from all parts of America is already offered at unusually desirable rates, and, further, that still lower fares may be secured before the time of meeting. Rates at the Niagara for rooms are two dollars and upward a day for one person, and members are advised to secure their rooms without delay. Those who desire accommodations elsewhere are requested to write the Visitors' Information Company, 538 Ellicott Square, or the Buffalo Business Men's Association, 217 Main Street. Desirable and convenient accommodations in close proximity to headquarters may thereby be secured at rates for rooms of one dollar and upward a day for each person.

THE Medical Association of Central New York will hold its 34th annual meeting at Buffalo, August 27 and 28, 1901. The officers announce that the present plan is to have the first session on Tuesday morning, the 27th, in the lecture room of the Society of Natural Sciences, at the Library Building, corner of Washington Street and Broadway. After luncheon the afternoon can be devoted to clinical demonstrations or operations at several of the hospitals, which members can visit according to their interest in different special departments, or, if they prefer, a preliminary inspection may be made of the exposition. In the evening there will be an informal social gathering, if possible, somewhere on the exposition grounds.

On Wednesday morning the second session will be held at the Library Building, and, after luncheon, the afternoon and evening may be spent at the exposition. It is desired that the papers be limited to ten minutes, and each speaker in the discussions to five minutes.

Another circular letter will be issued later giving the list of papers and further arrangements then completed. The attend-

ance will probably be large and it is hoped that the sessions will also prove specially instructive and enjoyable. Lucien Howe, President, Buffalo; Charles A. Van der Beek, secretary, 16 Gibbs Street, Rochester.

THE annual meeting of the Lake Keuka Medical and Surgical Association will be held at Grove Springs, Lake Keuka, N.Y., August 13 and 14, 1901, commencing at 11.30 a.m.

The officers are as follows: President, Henry Flood, Elmira; vice-president, Wm. B. Macy, Willard; secretary and treasurer, W. W. Smith, Avoca.

Program—President's address, Henry Flood, Elmira; discussion opened by Wm. Austin Macy, Willard. Affections of the nervous system in early and late syphilis, George Conderman, Hornellsville; discussion opened by W. Sylvester Cobb, Corning. Cerebro-spinal meningitis, Floyd S. Crego, Buffalo; discussion opened by Robert P. Bush, Horseheads. Treatment of melancholia, Charles G. Wagner, Binghamton; discussion opened by G. D. Crandal, Blossburg. Treatment of lobar pneumonia, Charles G. Stockton, Buffalo; discussion opened by C. L. Stiles, Owego. Relation of mosquitoes to malaria, Arthur W. Booth, Elmira; discussion opened by Veranus A. Moore, Ithaca. The small-pox problem, its dissemination, control and attending difficulties, Ernest Wende, Buffalo; discussion opened by H. D. Wey, Elmira. The necessity of proper diet for infants at the beginning, Charles W. M. Brown, Elmira; discussion opened by Charles W. Hayt, Corning. Tetanus—report of three cases, W. B. Clapper, Farmington; discussion opened by M. L. Bennett, Watkins. Appendicitis, when to operate, A. L. Beahan, Canandaigua; discussion opened by C. S. Parkhill, Hornellsville. The indications and limitations of surgical intervention in diseases of the stomach, W. G. Macdonald, Albany; discussion opened by Lewis W. Rose, Rochester. Surgery of the biliary passages, John B. Deaver, Philadelphia; discussion opened by Roswell Park, Buffalo. Asthma in its relation to nasal disease, John O. Roe, Rochester; discussion opened by G. M. Case, Elmira. Concerning purulent ophthalmia, Lucien Howe, Buffalo; discussion opened by Sherman Voorhees, Elmira. Cancer of the uterus, H. P. Jack, Canisteo; discussion opened by F. W. Ross, Elmira. Early prophylaxis in obstetrics, William A. Howe, Phelps; discussion opened by C. C. Harvey, Dundee. Pathology in the German University, A. T. Kunkel,

Westfield. Remarks on leprosy, J. E. Walker, Hornellsville; discussion opened by H. R. Ainsworth, Addison.

Smoker given by the Physicians of Elmira, N.Y., Tuesday evening, at the Lake Keuka Club.

COLLEGE AND HOSPITAL NOTES.

THE medical department building of the University of Buffalo is to be enlarged by an additional story. It is announced that work will be begun at once under the supervision of George Cary, architect. The new story is to be used for laboratory purposes. The college amphitheater is also to be raised and improved.

THE Fresh Air Mission Hospital at Athol Springs affords admirable facilities for the care and treatment of sick babies. It contains thirty beds, has four competent trained nurses, two resident physicians and receives daily visits from the visiting staff. The hospital is free and there is no difficulty to secure admission. Anyone who goes to the Fitch Institute, No. 165 Swan Street, with a card from a reputable physician, or even without a card, will be sent out at once if there is room in the hospital. The hospital is intended especially for cholera infantum and diarrheal diseases, but when there is room receives any patient, infant or adult, who will be benefited. It is most beautifully situated directly on the beach and if babies are not sent too late, a cure is almost assured.

GOVERNOR BENJAMIN B. ODELL, JR., has been spending a few days in Buffalo and vicinity, inspecting the state hospitals and other public institutions. He was accompanied by several state officials, including the chairmen of the appropriation committees of the legislature, and we have no doubt the information secured during this tour of inspection will prove of valuable interest to the commonwealth.

Governor Odell is a business man and applies business methods to his work—an example that might prove of value to some of the officials of our municipal administration. He rises at 6, breakfasts at 7, and by 8 o'clock is well under way for the business of the day. He reached the Buffalo State Hospital by 9 o'clock and gave it one of the most thorough inspections it ever received at the hands of a nonprofessional state official.

Happily, Dr. Hurd's efficient management of the hospital left little for criticism at the hands of the governor; but we have no doubt his visit will lead to still further administrative and economic reforms in all the state institutions.

THE Albany Hospital began its series of clinical days, referred to in the July issue of this journal, on Tuesday, July 2, 1901, at which there were between 75 and 100 physicians in attendance from different portions of the country. Dr. Albert Vander Veer delivered the introductory address, taking for his subject The development of medicine and surgery in the Albany Hospital. It was an interesting historical review, beginning with the founders and carrying it down to the present and including the work of such men as Alden March, Thomas Hun, Hoff, S. Oakley Vanderpoel, Henry March, S. H. Freeman, Mason F. Cogswell, James McNaughton, Charles Smith, James P. Boyd, U. G. Bigelow, J. R. Boulware, Joseph Lewi, Jacob S. Mosher, John V. Lansing, James E. Pomfret, W. G. Macdonald, James H. Armsby and others.

The remainder of the program consisted of the following: (1) Amputations at the knee and operation; (2) general sarcomatosis, demonstration of case and treatment; (3) actinomycosis, intraabdominal, discussion of diagnosis and treatment, two cases; (4) the physical examination of the abdomen. Luncheon at Albany Club; 2.30 p.m., Bender laboratory, general remarks on the use of the microscope, method of examination for the tubercle bacillus, by George Blumer; 3.30 p.m., clinical lecture on chronic nephritis, by Samuel B. Ward. The clinics will be continued during the month of August.

PAN-AMERICAN NOTES.

"FAIR JAPAN, one of the many interesting foreign countries on the Midway, was installed at the special instance of Director General Buchanan and every effort was made to secure a representative exhibit from the Japan Islands. Mr. Kushibiki, the manager of Fair Japan, was untiring in his efforts to build the village in a most attractive manner, and after everything was finished, the one difficulty was the procurement of the Geisha girls. They, however, have arrived at last and these young women are attractive, pretty and talented. Naome is a cele-

brated beauty of Tokio and will win her way into popular favor immediately. The young women have brought their native instruments and the merry tinkle of the samisen is now heard to the accompaniment of graceful tripping and gliding of the Geisha maidens.

Sadly enough M. Kushibiki, just as the Geishas arrived, sustained an injury necessitating amputation of a leg.

"ESAU," the chimpanzee, exhibited by Frank C. Bostock at the exposition, gave a special reception at the Iroquois Hotel, July 16, to forty or more prominent physicians. After the seance, the physicians examined "Esau," and pronounced him a most wonderful specimen.

Dr. William H. Heath, on invitation, gave a short clinical lecture on the resemblance between "Esau" and a human being. He said that the chimpanzee's head showed remarkable intelligence, and that his anatomical formation resembled closely that of a man of the lower order. Afterward several of the medical men made examinations of the "missing link."

THE competition for the fireworks contract has closed and Pain will probably be the winner. The displays shown in competition were more brilliant than anything in the fireworks line which has ever been seen in Buffalo.

BOSTOCK'S animal show is drawing the crowds. The arena is the most instructive place on the Midway. Bostock has gathered together a most interesting collection of animals and they are shown in all degrees of training. A feature which has recently been added, and which is on the whole entirely novel and new, is the throwing open to the public of the training quarters where the animals in their wild state are put through their lessons for appearance in the big arena. Some of the wildest and most exciting battles between the trainers and animals that ever took place outside of the native wilds occur here.

THE Midway will have a day of its own August 3, and it will be the biggest day of the whole exposition. The display will be bigger and better and more interesting than any special day which has been fixed upon and the events will follow one another without a break from early morning until long after midnight. It is expected that the illumination of the grounds will be continued all night and the Midway Day will not end until the rise of the sun on the next day. One of the features which has been decided upon is a mammoth dancing fete, in which will

be seen all the dancers from all corners of the world who are at present performing in the different villages and streets on the Midway. They will be seen in one big display.

THE infant incubator at the junction of the Midway and the Mall has a constant stream of people going in and out. There are now 18 babies prematurely born in the incubators and the scientific rearing of these little human beings hanging between life and death by the slenderest thread, is most interesting not alone to scientists, but to the many mothers who go to the exposition. The incubator is in charge of physicians and the babies are cared for by nurses trained for this work alone. One can neglect seeing any other place on the grounds rather than this. It is not alone interesting; it is popularly instructive.

THUS far the Emergency Hospital has cared for over 3,000 patients. This number will be largely increased during the last three months of the exposition, for it is expected that the attendance will be more than four times the average of the first three months.

THE railroads have promised to make rates now and the crowds will begin to flock to Buffalo. Already some of the roads have made a cut and the number of people who visit the Rainbow City is appreciably increased.

DURING the extremely hot weather there were a great many cases of heat prostration, the highest number in one day being 38. There has not been received in the hospital thus far a case of sunstroke.

HARDLY a day passes that a dozen or so of women and children are not received in the Emergency Hospital as patients, suffering with a slight stroke of illness. Many a woman overcome by sudden indisposition has been taken to the hospital, where under the careful ministration of the very excellent nurses on duty they have soon recovered.

THE firework displays are features which draw night crowds. They keep people off the Midway, but furnish an entertainment of dazzling and gorgeous brilliancy.

DR. ROSWELL PARK'S excellent medical organisation has been warmly complimented by visiting physicians and sanitarians, who speak in the highest terms of the conduct of the hospital. Dr. Park's supervision extends over all the grounds and buildings, and not a day passes that the sanitary officer on his staff does not report to him exactly the sanitary condition of the

exposition. Constant watchfulness keeps the foreigners clean, and surprise is expressed at the perfect sanitary supervision.

THE Crèche is now in operation at the exposition and babies may be checked with a certainty that they will receive the best possible care. The Crèche is a large tent, near the Emergency Hospital, equipped with every modern contrivance for attention to the infants.

THE African Village on the Midway is probably the most curious collection of foreigners at the Pan. They live in their village exactly as they do in their own country—half-naked. Their dances are weird, their music of the most primitive character. The most interesting feature of their methods is the way in which babies are carried across the mother's back.

PAINTED HORSE, a Pawnee chief, fell from the canvas cliff in front of the Indian Congress to the pointed rock ravine, 20 feet below and landed on his head. Old War Bonnet, the hereditary medicine chief of the tribe found Painted Horse unconscious and informed his tribe that their chief was dead. Then he proceeded to blow in his ears and nostrils, rubbed queer mixtures into his hair and lo, Painted Horse came to life. Then the tribe gave War Bonnet lots of presents because he had worked a miracle and brought the dead chief to life.

THE first death since the opening of the exposition occurred at the Indian Congress on the 13th of July, and was in a way accidental. John Ghost Dog, the year-old child of Ghost Dog and Plays-on--Flute, ate some partially cooked rice. The papoose choked and drew some of the hard grains of rice into its lungs. Almost immediately it developed a pneumonia and died within six hours. The child was buried at Pine Hill Cemetery. The ceremonies attending the funeral were unique. There was the usual four days of death, dancing and chanting of the famous spirit song of the Pawnees. Crumbs of bread were sprinkled in the blanket in which the little body was wrapped, to provide food for the spirit and the mysterious guide from the happy hunting grounds, which comes always to the dead to conduct the spirit to its new home.

The family mourning continues for a full month. Then the daily routine of life is resumed, the spirit by that time having reached its new abiding place.

CHIEF Little Wound, the old sachem, who attracted so much attention while he was at the Indian Congress, and who was

sent home to the reservation at Pine Ridge, S.D., is dead. He went to the happy hunting grounds on the 18th inst., from his tepee at Pine Ridge.

THE hot weather made the Eskimos sigh for the frozen fields of their far away home. They dress in linen garments, except when they are giving exhibitions. One untutored son of the ice belt asked concessionaire Taber to please make a prayer for ice to come.

THE health of the foreigners is remarkably good. This is due to two causes. They are under constant supervision and they are compelled to keep clean.

THE action of the directors in making the Sunday admissions 25 cents, children 15 cents, was a very popular move, and with great propriety might have been taken in the beginning.

BOOK REVIEWS.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of the Nervous System and its Diseases. By PROFESSOR DR. CHR. JAKOB, of Erlangen. From the second revised German edition. Edited by Edward D. Fisher, M. D. Professor of Diseases of the Nervous System, University and Bellevue Medical College, New York. With 83 plates and copious text. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.50 net.]

One feels rather overawed in taking up seriously a book on the nervous system and its diseases, unless one is a specialist in that branch of medicine, for no matter how deeply we may be versed in general practice or any of the specialties there is something about a work on the nervous system, when it is at all pretentious, which commands our respect and rather makes us feel that there are things which are far beyond the ordinary ken. One rather feels instinctively that the men who deal in brains and nerves and spinal cords and toss about learned and familiar references to glia cells and nuclei and all kinds of segments and lobes, and their decussations and their projection paths, are rather superior sort of fellows, who may be great men in medicine and yet who, from their talk at times, a casual listener might take for California fruit raisers, architects or Egyptologists, when they refer so familiarly to olives and columns and pyramids.

Yet, the man who prefaces a text-book on this subject—this extremely delicate branch of medicine—is really a superior sort of a scientist, provided he puts his ideas into readable form and gets a good artist to make the plates. That is the kind of a man Dr. Christfried Jakob is; a very superior sort of a scientist, for he has put his ideas and his knowledge into an atlas which is really one of the few valuable books in medicine recently published. Of course, being a nervous disease specialist he leads us

into all sorts of deep water, but so admirably and so clearly does he express himself that we understand him and realise that he is writing for the profession at large, and not for the limited number of specialists to whom a chronic progressive ophthalmoplegia is as simple as was measles to the dearly beloved old saddle-bag practitioner of the long ago.

In this respect, if in no other, the book is a decided novelty in the way of nervous disease literature, because it is of absolute value to the student and the man who doctors the \$2.00 a visit ills of life. It is not beyond them, and although they are admittedly unfamiliar, as a rule, with this branch of science, with the assistance of this atlas, they can gain a very clear idea of the present state of neurology and with very little brain-strain too.

The book is most admirably illustrated—much more artistically and much more beautifully than the usual run of such volumes. The illustrations are certainly more valuable, because they have been made from sections prepared by Dr. Jakob, and even to the untrained eye, they mean something. They are eloquent in their descriptiveness, beautiful in their art. Especially is this so of the section devoted to pathology. The exact character of each lesion is shown and in a manner which cannot fail to impress itself on even an ordinarily susceptible mind. In this respect again, is the book unusual.

Much praise is due Dr. Edward D. Fisher, the editor of the Atlas. He could easily have spoiled it as a work of value. That it is such, and a book of unusual merit is due to his editorship. The book is in six parts covering every branch of the subject. The first part deals with morphology of the nervous system; Part II., development and structure of the nervous system; ontogenesis and histology; Part III., anatomy and physiology of the more important nervous pathways; Part IV., general pathology and treatment of diseases of the nervous system; Part V., special pathology and treatment; Part VI., general remarks on autopsy technic, and the microscopic examination of the nervous system.

And it is all worth the money.

N. W. W.

CHRONIC URETHRITIS OF GONOCOCCIC ORIGIN. By J. DE KEERSMAECKER, Chief of Service, Diseases of the Urinary Organs at the Centralklinik of Antwerp; and J. VERHOOGEN, Agrégé at the University of Brussels; Chief of Service, Diseases of the Urinary Organs, at the Polyclinique Libre. Translated and edited with notes by Ludwig Weiss, M. D., Attending Physician to the Genito-urinary and Skin Service, German Poliklinik; Dermatologist to the Hebrew Orphan Asylum, New York, etc. Small 8vo, pp. 274. New York: William Wood & Co. 1901.

This volume appears for the first time in the English language. It has been translated, edited, and, it might be said, revised by Weiss. It is well that it has been revised, for although the German authors have produced a very interesting and scientific volume, there would have been so much lacking that it is a question whether the work would have been given the

standing it deserved by the American medical profession, except for the editor's note.

It is pleasing to read Weiss's advice as to the use of urethral antiseptics and pre-urethral cleansing before the passage of instruments of any kind, yet in Chapter XII. he says: "But in our opinion it is not essentially necessary in cases where a noninfectious process is to be combatted." This should have been omitted for the cases are so few in which instrumentation is necessary when there has been no previous trouble of an inflammatory nature, that it is safe to advise antiseptics in every instrumental exploration of the urethra.

Weiss admits that chills do occur even after urethral flushing with a 4 per cent. boracic acid solution. The reviewer thinks that if this were used full strength or a formaldehyde solution 1-1000, chills would never occur, and, furthermore, that neither of these solutions would in any way injure the delicate epithelial lining.

Chapter XIII., devoted to mechanical treatment, advises the use of dilators instead of sounds in promoting the absorption of inflammatory patches and the like. Neither authors nor translator mention one word as to preparation of the canal before these instruments are used. They do admit, however, that in nearly every case following dilatation there is an increase of discharge, at times to an extent where this form of treatment must be discontinued and resource given to astringents.

It is a fact that a sound, and especially an instrument covered with rubber, will cause more or less irritation even in a healthy canal. What then must be the result when such an instrument is passed through a canal suffering at the time or only recovering from inflammatory action? It is the reviewer's opinion that these exacerbations following instrumentation could be eliminated, providing the membrane were brought to as near a normal condition as possible before dilatation was instituted. Exacerbations not only could be obviated, but a cure could be recorded in much less time than is shown by some of the cases reported.

In Chapter XV., added by Weiss, that great question of gonorrhea and marriage is well considered, much space being given to the cocci as an infecting agent. He also speaks of pus cocci, but does not give them the space they deserve. It is an assured fact that no practitioner would allow a patient to marry while gonococci were present, but would it be advisable to allow marriage to take place even though repeated examination would show their absence, if the urine contained pus, known to come from the lower urinary region and this on careful examination showing strepto- or staphylococci? It is true they could not cause specific (gonorrhea) involvement, but they would undoubtedly produce inflammation, which would run a course just as severe as though gonococci were present. Of course, this question is a grave one for consideration and should only be dealt with by a liberal, yet well-informed microscopical operative.

Several beautiful plates are introduced showing the urethra as seen through an endoscopic tube, but it must be conscientiously

said that the only way to learn the urethra is by seeing it in the living subject, under the instruction of an experienced man.

J. H. D.

ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE. By CHARLES E. DEM. SAJOUS, M. D., and 100 associate editors. Assisted by corresponding editors, collaborators and correspondents. Illustrated with chromolithographs, engravings and maps. Volume VI. Rectum and Anus, Dis. of, to Zinc. Philadelphia, New York and Chicago: F. A. Davis Co. 1901.

This fine volume of the current series of this great work is a credit in every way to the accomplished editor and those of his associates who have contributed to this number. Among the articles of note in this volume are: one on rheumatism, by Levison, of Copenhagen; one on diseases of the stomach, by Stewart, of Philadelphia, another on surgery of the stomach, by Keen and Tinker, of Philadelphia; one on syphilis, by Lydston, of Chicago; one on wounds and injuries of the chest, by Stimson and Keyes, of New York, and one on yellow fever, by Wyman, of Washington.

There are many other articles that well deserve mention, indeed, the entire book teems with good things. It is beautifully printed and handsomely bound—uniformly with its predecessors in this series—and altogether, makes one of the most satisfactory reference books yet issued. Public libraries should be particular to obtain this series, as it constitutes an important addition to the reference department of such institutions.

THE FEEDING OF INFANTS. Home Guide for Modifying Milk. By JOSEPH E. WINTERS, M. D., Professor of Diseases of Children, Cornell University Medical College. New York: E. P. Dutton & Co. 1901. [Price, 50 cents.]

Dr. Winter has written a little book with the subtitle, Home Guide for Modifying Milk, which perfectly describes its scope. Many physicians will be glad to place in the hands of mothers and nurses such a simple and practical guide. M. J. F.

QUIZ COMPENDS. No. 4. A Compend of Human Physiology. Especially Adapted for the Use of Medical Students. By ALBERT P. BRUBAKER, A. M., M. D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery, etc. Tenth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, 80 cents.]

The fact that the publishers find repeated editions of quiz compends called for is sufficient proof of the usefulness of the publications to those for whom they are written. The present volume is in its tenth edition.

SAUNDERS'S QUESTION COMPENDS. Essentials of the Diseases of Children. By WILLIAM M. POWELL, M. D. Third edition. Thoroughly revised by Alfred Hand, Jr., M. D., Dispensary Physician and Pathologist to the Children's Hospital, Philadelphia. Duodecimo, 259 pages. Philadelphia and London: W. B. Saunders & Co. [Price, \$1.00 net.]

The publisher presents the third edition of the Essentials of Diseases of Children. A short chapter on infant feeding has been added and other chapters and sections rewritten.

BOOKS RECEIVED.

Essentials of Refraction and of Diseases of the Eye. By Edward Jackson, A. M., M. D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic. Third edition, revised and enlarged. Duodecimo, 261 pages, 82 illustrations. Philadelphia and London; W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

Practical Surgery: A Work for the General Practitioner. By Nicholas Senn, M. D., Ph. D., LL. D., Professor of Surgery, Rush Medical College, Chicago. Handsome octavo volume of 1133 pages, with 650 illustrations, many in colors. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$6.00 net.]

The Hygiene of Transmissible Diseases: Their Causation, Modes of Dissemination and Methods of Prevention. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, University of Pennsylvania. Third edition, revised and enlarged. Octavo, 351 pages, with numerous illustrations. Philadelphia and London. W. B. Saunders & Co. 1901. [Price, cloth, \$2.50 net.]

Diseases of the Intestines. By Dr. I. Boas, Specialist for Gastro-Intestinal Diseases in Berlin. Authorised translation from the first German edition, with special additions by Seymour Basch, M. D., New York City. Octavo, pp. 574, 47 illustrations. New York: D. Appleton & Co. 1901. [Price, cloth, \$5.00; sheep, \$6.00.]

The Johns Hopkins Hospital Reports. Volume X., Nos. 1 and 2. Baltimore: The Johns Hopkins Press. 1901.

Transactions of the Southern Surgical and Gynecological Association. Volume XIII. Thirteenth annual session, held at Atlanta, Ga., November 13, 14 and 15, 1901. Secretary, Dr. W. D. Haggard Jr., Nashville. Published by the Association. Philadelphia: W. J. Dornan, Printer. 1901.

Bulletin of the Buffalo Society of Natural Sciences. Guide to the Geology and Paleontology of Niagara Falls and Vicinity. By A. W. Grabau. Albany: University of the State of New York. 1901.

ITEMS.

INFANT feeding is an especially important and difficult problem during the heated term. The directions formulated by one of the leading American specialists, which were first published by The Maltine Company last summer, proved of immense service to many progressive practitioners. A new edition, comprising clear instructions and a liberal number of detachable recipes, tastefully bound, can be had gratis by applying to the Maltine Company, Eighth Avenue and Eighteenth Street, Brooklyn, N.Y.

THE M. J. Breitenbach Co., 53 Warren Street, New York City, representatives of Gude's pepto-mangan, most cordially invite all members of the medical profession when visiting New York City to make their office a business home.

MESSRS. REED & CARRICK have just issued "Clinical Records, No. iii.," relating to the administration of protonuclein as a reconstructive agent. The records are in detail as to conditions and therapy, but names and addresses of patients and physicians are omitted. These can be supplied on request, in case of such desire, but this plan is commendable, relieving physicians of embarrassment in supplying such important data.

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No. 2.

ORIGINAL COMMUNICATIONS.

Tubercular Disease of the Spine and Hip and Early Symptoms of Hip-Joint Disease and Treatment.¹

By A. M. PHELPS, A. M., M. D., New York City.

I.—POTT'S DISEASE.

THE name "Pott's disease of the spine and hip disease," in view of the light thrown upon the subject by our knowledge of modern pathology and surgical bacteriology, is a most unsatisfactory term. When the disease was first described by Pott, little was known of the etiology and pathology of the affection. He described the deformity of the spine which rapidly increased, producing a marked kyphosis, attended or unattended with abscess. This was supposed to be due to a constitutional taint. He recognised post mortem the breaking down of the bodies of the vertebræ, extensive destruction of the soft parts and of the bone, and this he knew was what produced the kyphosis. All cases presenting this characteristic deformity, attended or unattended with abscess, from that day to the present, have been termed "Pott's disease of the spine," and so Sayre described hip disease. Only a few years ago Mr. Bright, of England, published his remarkable paper on Bright's disease of the kidney. He recognised during life albumin and casts in the urine, and upon post mortem examination he found conditions of the kidney which produced it; therefore, until quite recently, when albumin and casts were found in the urine, the case has been termed "Bright's disease of the kidney." But careful investigation by pathologists has demonstrated that a great many

1. Read at the 26th annual meeting of the Alumni Association of the University of Buffalo Medical College, April 26, 1901.

conditions of the kidney produce this condition of the urine found in so-called Bright's disease, and, in fact, this condition of the urine may exist and the kidney present no structural change whatever. The investigations of pathologists and bacteriologists have gradually classified the different affections of the kidney, until today we seldom speak of Bright's disease of the kidney, excepting we know that actual degeneration has taken place, or where we use the term "acute Bright's," a pathological condition which we all recognise exists. So, in Pott's disease of the spine it should be our duty, as far as possible, to classify the affections which produce similar symptoms, and which are now all classified under the one name, "Pott's disease of the spine." The same is true of the hip.

We recognise at the present time tubercular disease of the bodies of the vertebræ—a disease beginning insidiously, progressing slowly, covering periods of months or even years, and resulting or not resulting in abscess. We also recognise another condition—acute osteomyelitis—in which the onset of the disease is sudden, its progress active and virulent, the destruction of the bone extensive, and the formation of abscess following very soon after the attack. A condition very closely resembling Pott's disease of the spine follows in the course of the eruptive fevers, particularly of typhoid. This is no doubt of an inoculation into the spinal vertebræ of matter which has been absorbed from the Peyerian patches of the intestine. This condition of the spine has its own peculiar symptoms, and is quite easily recognised. Then, another disease of the spine which closely resembles Pott's, a rare affection, is due to the inoculation of the germs of actinomycosis. A beautiful specimen of this is in the anatomical museum of the University of Vienna. So you see that, at least four diseases are now recognised, and can be demonstrated to produce symptoms similar to those described by Pott, and which are now being jumbled together and classified under the one name—Pott's disease of the spine.

Now, in regard to the etiology of these diseases of the spine and joint: undoubtedly the disease must be preceded by a localised inflammation. Into this area of inflammation are inoculated the germs which produce the destructive changes in the bodies of the vertebræ. That Pott's or hip disease is a manifestation of a "constitutional taint," I think is incorrect; that it is a localised focus of disease, I believe. To illustrate: germ life, to grow and produce its destructive changes, must have a soil

fit for its reception and nutrition, and it is only within the area of the active process of repair in which large masses of embryonic cell tissue are present that we find such a soil. Unless there is a lesion of an inflammatory nature in any portion of the body, germ life cannot find a foothold for its growth. For example, an incised wound is made; we watch it closely and find that the first process that takes place is an effusion of blood and coagulation; then a rapid wandering of cells into this blood clot occurs, and rapid cell proliferation. These cells rapidly form themselves into line between the cut ends of the tissues for the purpose of repair. Very soon organisation takes place, new tissue is built up; loops of capillaries are thrown into these tissues. After this, contraction begins to take place, the capillaries are destroyed, the epithelium grows over the surface of the wound, and we say the wound is healed. This, I believe, to be the normal process of repair. This is inflammation, and this is as normal as the growth of the stag's horn. This reparative inflammation is necessary in all cases where injury has been inflicted. If at any time during this process of repair or normal inflammation, germ life is inoculated into this new inflammatory tissue, another condition is at once established. If these germs are streptococci or some one of the pyogenic germs, they at once seize upon this new inflammatory material, and they with their ptomaines destroy it. In this case inoculation has taken place and we say that the wound has become infected, and disease is the result. This disease is suppuration.

If the germs of tuberculosis should be inoculated into this new inflammatory tissue, the growth takes place immediately, but it is very slow. No pus is formed from the bacilli of tuberculosis, but the germs grow, and as surely destroy this new inflammatory material as did the germs of suppuration. Then we say that this new inflammatory material has become diseased, that we have a tubercular inoculation or a tubercular focus of disease. So we see there is a vast difference, as I define it, between inflammation and disease, that injury may have been produced by a trauma or embolism; in any case the rapid effort of nature to repair the injury which has been done builds up new inflammatory material, and into this material is inoculated the germs which are floating in the circulation.

Should these germs be pyogenic, then a very rapid osteomyelitis with the formation of abscess is almost sure to take place. If, on the contrary, the germs of tuberculosis are floating in the

circulation, and they come in contact with this area of normal inflammation, then so surely will the diseased condition be a tubercular disease of the spine, which begins insidiously, progresses slowly, and produces destruction by ulceration or caries. If absorption has taken place from the Pyerian patches, and inoculation takes place into a focus of new inflammatory material, then we have what is known as the "typhoid spine or hip." The same may be said of actinomycosis. After inoculation has taken place with the germs of tuberculosis, the growth in this new inflammatory material is very slow. After a time, the entire new material is destroyed. Just outside this area of disease a new barrier has been thrown up by nature—a new barrier of inflammatory material. Into this the tubercular germs rapidly grow, and they destroy this new wall of inflammatory material, and so the normal process of repair goes on just a little in advance of the disease.

Tubercular disease never produces an abscess per se. We all frequently find large tubercular cavities which are filled with tubercular materials, but pus is absent. But just as soon as one of these cavities become inoculated with pyogenic germs, then abscesses form immediately; so that it may seem a little heterodox for me to say that abscesses of the spine are seldom prevented by any treatment, after inoculation has taken place, and that when inoculation of the pyogenic germs takes place into an old focus of tubercular disease, that case will rapidly go on to the formation of abscess in spite of anything that can be done, with an occasional exception, and depending upon the physical condition of the patient. By this I do not mean to say that proper treatment is to be discouraged, because the sooner the tubercular focus of disease is done away with, the sooner will the powder magazine be removed from the patient.

We see, then, that these cases of Pott's disease of the spine are always preceded by a lesion in the bony structures, which lesion is either produced by trauma, embolism, or some other pathological cause, producing an area of inflammation into which inoculation takes place from the germs which are floating in the circulation. The condition is purely local, and has nothing whatever to do with a "constitutional taint." The reason why one child is affected with local tuberculosis of the spine, and another is not, is to be found in the condition of the child. That condition is known as struma. Struma is not a disease; it is a condition, and I hope that I never will see again printed the

terms "strumous joint" or "strumous spine." Struma probably exists in the protoplasm of the ultimate cell, and measures the resistance of that protoplasm to the attack of germ life. Scrofula we now know to be tuberculosis, so that "scrofulous spine" and "scrofulous joints" have been relegated to the obscurity which they so justly deserve. General tuberculosis takes place as the result of multiple inoculations in different parts of the body from absorption.

The pathology of the affection depends, of course, entirely upon the etiology. In discussing the etiology I have touched somewhat upon the pathology, so that can be passed over briefly. It is needless for me to say that the disease is, as a rule, with an occasional exception, located in the bodies of the vertebræ or between the bodies of the vertebræ in the intervertebral cartilages, but more frequently in the bone itself. As I have already said, I will not enter into a minute pathology of this condition, because space will not allow; instead, I will present some cuts of pathological specimens, which will explain the location of the disease and will represent closely the conditions found in this affection.

TREATMENT WITH A PROPER SPINAL SUPPORT.

Fig. 1 is a cut of a specimen taken from a case of Pott's disease of the spine. It shows how sharply bent is the spinal canal, yet the cord has not been pressed upon. It also shows the consolidation that has taken place.

Fig. 2 is another photograph of a vertebral column which shows that the body of one of the vertebræ has been destroyed, and the portion of one of the vertebræ has been pushed into the canal against the cord. I show you these cuts from photographs to prove that there is no invariable rule in these cases—that there are many exceptions.

Here is still another cut (Fig. 3), showing the bodies of two vertebræ destroyed. By pressure the canal has been absorbed posteriorly, thus giving plenty of room for the spinal cord. This is a very interesting fact.

In regards to spinal bracing, I find that the aluminum corset is the best support that can be made. (See Fig. 4.)

I offer it not as a substitute for many of the braces and corsets now worn in the acute forms of Pott's disease and lateral curvature. I suggest it rather to take the place of such braces in cases requiring permanent bracing, or in individuals who are desirous

of securing a support at any time which combines durability with lightness and comfort. So soon as a case of lateral curvature has been arrested, or the greatest amount of benefit has been derived from treatment, the aluminum corset will then be found a most agreeable permanent support.



Fig. 1.

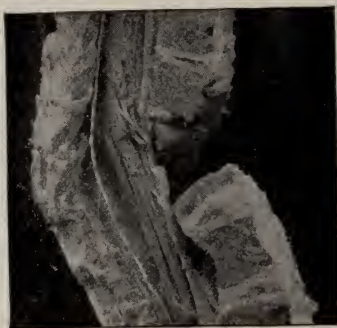


Fig. 2.



Fig. 3.

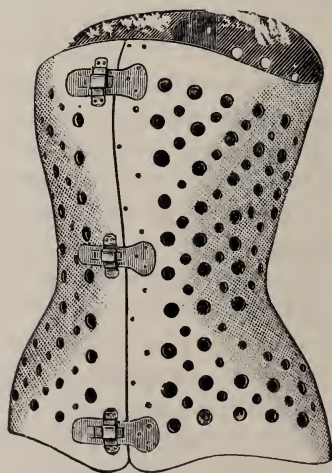


Fig. 4.

The aluminum corset has these qualities to recommend it to the patient: (1) lightness; (2) durability; (3) it is thin and does not interfere with the form and clothing; (4) being extensively perforated makes it the coolest and most agreeable of supports; (5) the patient can wear it during bathing.

An ordinary corset weighs from one to two pounds, depending on the size. To prevent cracking and to protect it from perspiration it is covered with a waterproof enamel which is applied by heat.

II. HIP-JOINT DISEASE.

Before considering the early symptoms of hip-joint disease, I would like to call attention briefly to a few facts which are observed clinically. Joints attacked by inflammation either intra- or extracapsular, have a condition of rigidity or spasm of the muscle about them. This is due to irritation of the terminal nerve plates in the area of disease, transmitted through the reflexes. The muscles operating upon the joint, which are supplied by a nerve given off from a common nerve trunk (one branch distributed to the area of the disease, the other to the muscle) are affected by spasm, while the other muscles may remain quiescent. That muscles affected by spasm will rapidly atrophy is well known. These facts are observed particularly in inflammation of the knee-joint. The knee-joint is supplied posteriorly by branches from the great sciatic nerve. The patella is supplied by nerves given off from the anterior crural. When inflammation attacks the condyles, flexion and rapid atrophy always takes place, but in patella disease, or disease located anteriorly, the limb remains in the straight position, owing to the fact that the reflexes are distributed through the anterior crural and not through the great sciatic. Assuming that these propositions are correct, and clinical observations seem to demonstrate them, we must at once conclude that rigidity of the muscles from spasm, producing a limit of motion, would be the first symptom observed in any joint disease. Limit of motion in any joint produces deformity. We would designate as the second most common early symptom in joint disease-deformity. This limit of motion and deformity produces a limp. So I think we can safely say that limit of motion, deformity, and limp are nearly always, if not always, present in hip-joint disease in the early stages.

There are in general joint diseases eight cardinal symptoms, two or more of which are always present. These cardinal symptoms are pain, heat, swelling, pain on joint pressure, limited motion, spasm of the muscles, atrophy and deformity. Each joint has superadded to these eight cardinal symptoms other special symptoms. These special symptoms are due to the anatomical characteristics of the joint. In hip-joint disease pain is

not always a common symptom; rise of temperature, owing to the depth of the joint, is hardly perceptible; swelling is not seen until effusion or dislocation takes place; pain on joint pressure is present only in intracapsular disease, located between or near the articular surfaces. Limited motion, spasm of the muscle, limp and deformity, with apparent lengthening or real shortening are nearly always seen associated together. Atrophy pretty constantly occurs, especially in bone diseases, and it may occur as early as the tenth day. The other symptoms observed in the early stages are night cries, pain in the knee, flattening of the buttock, partial or complete obliteration of the gluteal fold.

When the limb is in a straight position the muscles accurately balance it, but when the limb becomes flexed, the action of these muscles is changed in proportion to the amount of flexion. If these muscles are in a condition of excitability or spasm from reflex irritation, one can easily see how various deformities can take place, depending entirely upon the position of the limb when the muscles act. When this great mass of muscles is affected by spasm, which is always the case in inflammation, one can readily see how limit of motion and deformity, to a greater or less extent, must be the earliest symptoms observed.

Before the last American Orthopedic Association, I presented a model, together with several dissections which I had made of the joints, for the purpose of demonstrating why the limb assumes certain positions, with occasional exceptions, when the joint is inflamed. The capsule of the normal joint is twisted around the head and neck in such manner that when the limb is in the straight position, great tension is exerted upon the joint through the capsule and its other ligaments. Now, when the joint or capsule becomes inflamed, the patient invariably places his limb in a slightly flexed and abducted position to relieve tension, and changes altogether the action of the muscles; they being in a condition of spasm, together with the voluntary act, produce the deformity of the first and second stages of the disease. When flexion takes place just a little farther, the action of the muscles is entirely changed; abductors become inward rotators; outward rotators become, to a certain extent, abductors, and the like. Resistance not being offered to the abductor muscles, the limb by their contraction, passes over to the deformity of the third stage of hip-joint disease, that is, abductive flexion and inward rotation. There are exceptions to these deformities, which I have designated as erratic, but they will not be considered now.

These deformities take place whether disease is intracapsular or extracapsular, whether there is effusion into the joints or not; and let me say here that only a limited number of cases have effusion into the joints in the early stages. To conclude, the importance of symptoms, I believe, speaking generally, occur about in the following order: (1) limit of motion; (2) deformity, with apparent lengthening or real shortening; (3) limps; (4) atrophy—bone disease; (5) pain in the knee—with absence of knee-joint disease; (6) pain on joint pressure; (7) night cries, in absence of other joint disease; (8) flattening of buttock, with change in gluteal fold; (9) heat; (10) swelling.

The order of these symptoms might be transposed a little by some authors, but this order will answer for diagnostic purposes.

TREATMENT.

The treatment of hip-joint disease is divided into the operative and mechanical. In all cases where abscesses are present they should be immediately evacuated. This enables the surgeon to intelligently explore the diseased joint with his finger, and ascertain to what extent the disease has progressed. If the head of the bone is separated from the neck it should be removed together with the great trochanter, and the neck. The acetabulum, if diseased should be thoroughly curetted, together with any other diseased tissue that may be found in the joint. If only small points of disease are found within the joint, those should be curetted, together with whatever diseased tissue exists within the joint, and the cavity washed out with bichloride solution, 1 to 2000. The joint should now be filled with a solution of iodoform and glycerine, one-half of iodoform to four of hot glycerine.

After this has been done the patient should be put in bed, with extension in the line of deformity and lateral traction above the knee, amounting to about three pounds. Day by day the limb should be lowered, until the deformity is overcome. When the deformity is overcome, the lateral traction fixation splint, which I devised and use in the Post-Graduate and other dispensaries, should be adjusted, and the patient put on crutches with a high shoe on the well leg. Pus and tubercular material destroy living tissues and when joints are allowed to macerate for weeks and months in these materials, which now seems to be the favorite method of many of our orthopedic surgeons, extensive destruction of the bone will almost surely follow. In many

cases extensive cutting of muscles, tendons and fascia may be necessary to overcome the deformity. The reader will see, then, that we believe that deformities should be first overcome and all abscesses opened before the mechanical work begins. No case of hip-joint disease need recover with angular deformity and to secure and attain this end, steps should be taken at the commencement of treatment to place the limbs parallel, after which the lateral traction fixation splint, already alluded to, will prevent the patient from becoming again deformed.

MECHANICAL TREATMENT.



Fig. 1.

For many years the profession has been taught that the long traction splint used by Sayre, Taylor and others, was the proper machine to use. The patient is allowed to walk upon this splint, using it as a perineal crutch. The splint stops at the trochanter and exerts no power over the joint on that account to fix the joint. The patient, stepping upon this splint with the strap around the perineum, causes trauma of the joint while walking, and nearly every splint that I have seen adjusted allows the patient to put his toe upon the ground, which of course drives the head of the bone into the acetabulum each time the patient steps (see Fig. 1.) This pumping of the head of the bone backwards and forwards into the joint at the rate of 2,000 times an hour each day, as the child runs, accounts for the disastrous results which we see published from institutions where this splint is used. Angular deformity, which produces shortening, nearly always

results from the use of this splint. The statistics published by Shaffer and Lovett, in the *New York Medical Journal*, from the 59th Street Orthopedic Dispensary, in 39 cases reported on in a series of many hundreds: ankylosis, 19; slight motion, 6; total, 25. Motion from 10 degrees, 7; motion to right angle, 3; motion free, 3.

The three with free motion were treated during the first stage of the disease; two were under three years old. There were only two cases without shortening. The splint used was the long traction, which I have already described—one which admits of free motion at the hip-joint and the patient is allowed to walk upon it. This splint was devised during a time when it

was believed that fixation would produce ankylosis of the joint, and that motion was necessary to keep up the nutrition of the joint. It is needless to say that we have outgrown both of these ideas. The statistics of Chambers Street Hospital of 50 consecu-

tive fractures of the elbow joint show only one case of ankylosis. These patients were fixed in plaster-of-Paris for many weeks, without passive motion. In the Post-Graduate Hospital and University Dispensary we fix our cases of hip-joints from one to five years without motion, with the lateral traction fixation splint, and in our large series of cases not one has resulted in bony ankylosis, excepting cases with great destruction of bone; and where we have had control of the patient even such have recovered, without angular deformity.



Fig. 7.

Fig. 7 shows range of motion in a case fixed sixteen months absolutely. Shortening is seen in this long series of cases only from non-development of the limb, and extensive bone destruction. The accom-

panying cuts and description will convey a very accurate idea of the splint, which we use in our treatment after the deformity has been overcome in bed. Tissues inflamed or diseased should be put at rest, to allow the normal process of repair to take place without the trauma of motion. This is the

law. It is applied in the treatment of the iris, fractures, sprains, and any other tissue that can be immobilised. To carry out the requirements of this law in so far as possible, I was led to devise these splints illustrated in this article. To fix the hip-joint, a splint must extend from the foot to the axilla. (See Fig. 2, 3, 4 and 6.)

Fig. 3 represents the perineal crutch with abduction bar adjustable by means of the key, for the purpose of making lateral

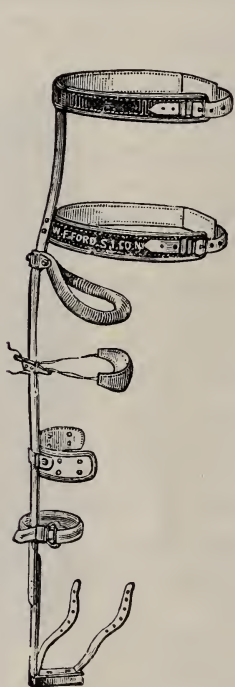


Fig. 2.—The Cheap Dispensary Splint.

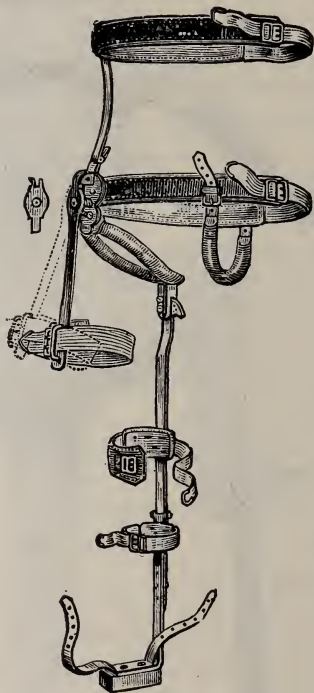


Fig. 3.—Inside Bar and Lateral Traction.

extension. The steel bar is adjusted to the steel ring, which makes a firm crutch, the pressure coming on the tuberosity of the ischium. Adhesive straps, extending too near the body from the ankle furnish means of extension by tightly buckling them to the straps, the ring furnishing counter-extension. The rod ending in the upper ring, prevents flexion and extension of the legs. The splint is intended to prevent every motion at the hip-joint, and at the same time apply extension in a line with the neck of the femur. Fig. 4 shows the crutch and splint adjusted, the

patient using crutches, and standing upon a high shoe upon the well leg.

This splint I found a little too expensive for dispensary work. I then constructed the splint (Fig. 2) which simply does away with the extension joint and key. This was also too expensive for dispensary work, but both splints did the work perfectly.

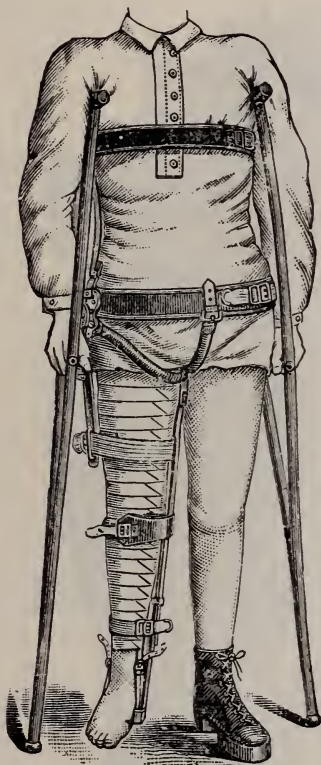


Fig. 4.—The Patent Splint, Adjustable High Shoe and Crutch.

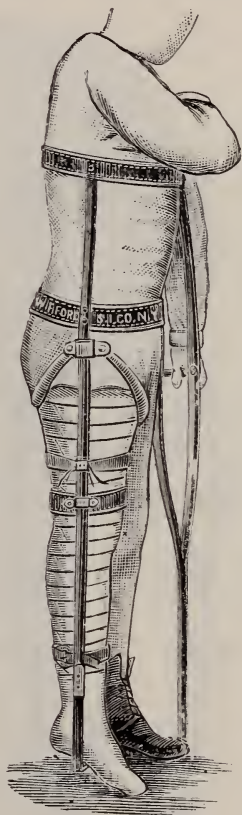


Fig. 6.

After a time, for my poor patients in the hospitals and dispensaries, I succeeded in perfecting a cheap splint, which applies the principle of fixation and traction in the line of the neck.

A glance at the cuts will convey the idea. Figs. 2, 3, 4 and 6 are the single and Fig. 5 the double splint for double hip disease. The splint is a bar of steel, extending from the foot to the axilla, accurately bent to fit the body. A tracing made on paper by laying the child on it will assist in shaping the bar.

A pelvic belt, a thoracic belt, and a steel perineal ring complete the fixation part of the splint. The straps in the foot-piece buckle to adhesive straps attached to the leg, which make longitudinal traction. The strap lashes the leg to the splint, making lateral traction precisely as the abduction bar acts in Fig. 3.

An ordinary blacksmith can construct this splint.

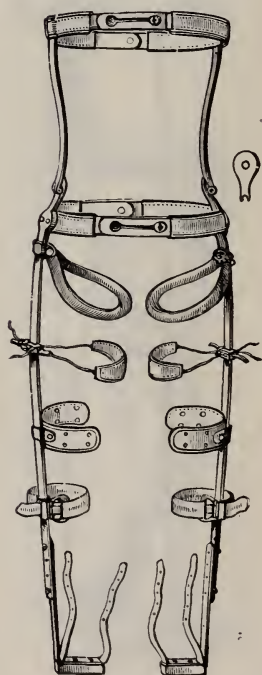


Fig. 5.—Double Dispensary Splint.

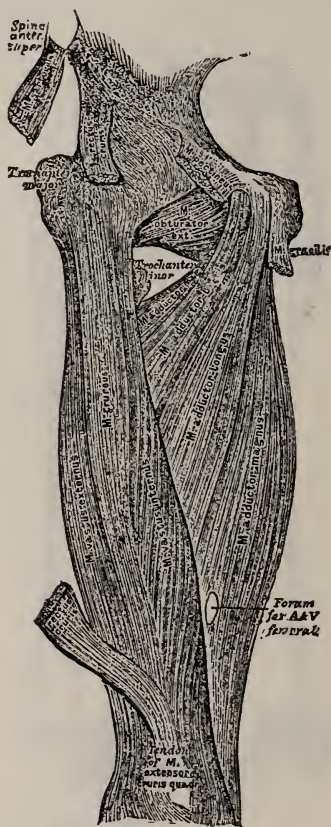


Fig. 8.

Figs. 8 and 9, illustrate the anatomy of the muscles surrounding the hip-joint. These muscles, when affected by spasm, act in a line parallel with the axis of the neck of the bone, hence the necessity of lateral traction to overcome intraarticular pressure. Fig. 10 shows how comfortably a patient can sit with the lateral traction fixation splint, fully as comfortably as with a long traction splint.

Before this or any other splint is adjusted, however, the patient should be treated in bed until deformity is overcome and the active stage of the disease somewhat modified.

To conclude, my observations lead me to believe that the most serious element of destruction in hip-joint disease is the trauma and pressure produced by the spasm of the muscle; that fixation

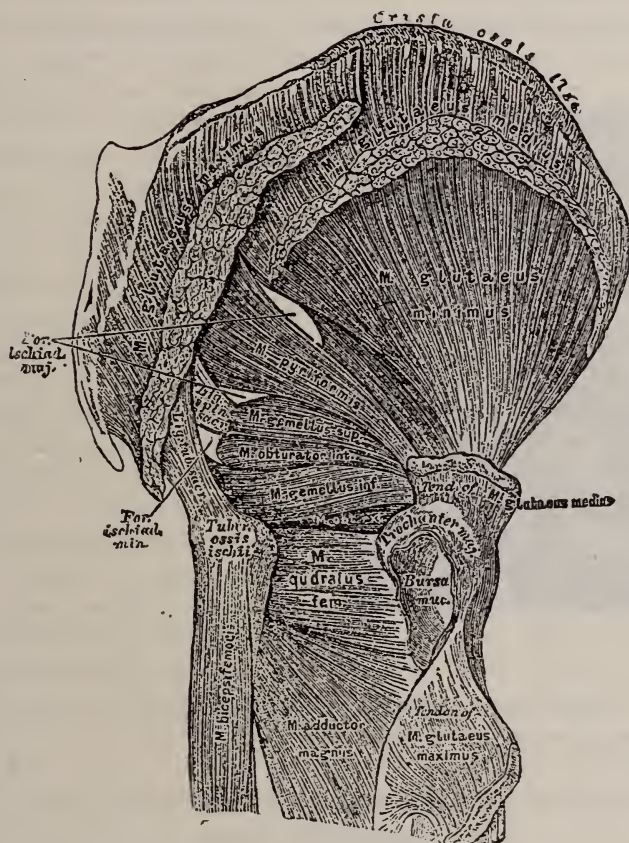


Fig. 9.

of the joint without extension is an impossibility; that the successful treatment of the joint must depend upon its absolute immobilisation, which can only be produced by proper extension and fixation; that the constitutional treatment of hip-joint disease amounts to but little, independent of mechanical treatment; that mechanics is everything; that extension in a line with the axis of the shaft and deformity alone, in hip-joint disease,

is entirely wrong; that extension should be made in a line parallel to the axis of the neck—in other words, two lines of extension—otherwise the idea of extension is not perfectly carried out; that ankylosis of the joint is not produced by immobilisation, but by the severity and character of the inflammation; that the long traction hip-splints in general use neither properly extend nor immobilise the joint; that intra-articular pressure results in the destruction of the joint or ankylosis in a large percentage of cases is proved by statistics; that the results in hip-joint disease should



Fig. 10.

be as good as those of knee-joint disease, and will be, provided perfect immobilisation can be carried out; that patients should never be allowed to step upon any portative apparatus; that a high shoe on the well leg and crutches should be insisted upon until the patient is cured; finally, that the angular deformity seen in cured cases should not occur, and such cases are a standing rebuke to the splint and methods employed. In other words, no patient with hip-joint disease need ever recover with angular deformity. In exceptional neglected

cases of dislocation a slight amount of deformity had better be left than resort to osteotomy.

HOW THE ORTHOPEDIC SURGEON SHOULD TREAT TUBERCULAR AND PURULENT ABSCESSES.

In regard to abscesses, I desire to present to you the latest ideas in regard to the etiology of the abscesses, and how the orthopedic surgeon should treat them.

Abscesses cannot occur excepting they are preceded by inflammatory action; that is, a lesion must occur first, and then the reparative process which we call inflammation—that is, a wandering or proliferation of cells; building up of new inflammatory material constitutes the area of normal inflamma-

tion. As I have already stated, this normal inflammation is produced by trauma, by anything which will injure the tissues; anything which will excite the reparative process, the process being inflammation. At this time there may be floating in the circulation the germs of suppuration, the streptococci, etc., or the germs of tuberculosis, which, coming in contact with embryonic germs, cause infection. If the process of repair goes on uninterruptedly tissues are restored, but the very moment infection occurs, a new barrier of inflammatory material is thrown up around it, and this cavity may be filled with tubercular material. Subsequent inoculation may take place by the introduction of pyogenic germs, and then we have a tubercular and purulent process. This material lying in contact with tissues, destroys them, except where the fibrous sac forms, known by the older authors as a pyogenic sac, and when it does, it builds up a barrier around this mass of pus or tubercular material, and the abscess becomes encysted. If burrowing takes place in any direction by the corroding and infecting of tissue, the breaking of abscess into cavities and pus burrowing will be the result. If the absorption takes place, and pus or tubercular material is eliminated through the circulation, there is likely to follow disease of the kidney and liver.

These abscesses are treated in a variety of ways, and I will briefly note each of the methods and the reason why we treat them in different ways. If an abscess occurs in the palm of the hand, which is designated as a surgical abscess, it is likely to follow the sheaths of tendons, and an incision has to be made in order to evacuate the pus. If it occurs in the wrist joint, it may rupture anteriorly and follow the sheaths and tendons. If an abscess burrows and discharges through the capsule anteriorly in hip-joint disease, it ruptures directly into the iliacus internus muscle, finding its way through that muscle into the pelvic cavity and there produces its destructive changes.

Aspiration.—The surgeon has virtually discarded the aspirator in the treatment of abscess. He no longer aspirates for empyema, and I can understand perfectly how aspiration of a psoas abscess might be good practice, but, as a rule, is bad. Aspiration might be desirable in small children, but as I have previously said, as a rule, in surgery the aspirator has been discarded in the treatment of abscesses. The Germans have a method of injecting them with a solution of glycerine and iodoform, and by means of this treatment some brilliant results have been reported.

When I look over the literature on the subject, and examine the cases which have been exhibited from time to time in which this treatment has been resorted to, I am not altogether in favor of the injection of abscesses indiscriminately. Upon the whole, I would not think of injecting a joint, if it was extensively diseased, with iodoform and glycerine. I would advise by all means, simple puncturing and intelligent exploration with the finger. If the abscess cannot be curetted and all the diseased tissue removed, it is better not to incise the abscess extensively. It is better to puncture and insert a drainage-tube. I would lay down the rule that abscesses and sinuses should never be curetted where there is dead bone at the bottom of them. In those large abscesses where you cannot remove the disease, do not make a big denuded surface. Puncture, establish drainage and wash out the abscess cavity with a solution of bichloride of mercury 1 to 2,000. In cases where the abscess appears externally, make a free incision, curet the cavity, close it up, and primary union of the external wound will result. It would be bad practice to put a scoop into a psoas abscess, because the diseased bone is not removed; it is beyond where we can reach it as a rule. Wash out the cavity as thoroughly as possible, insert a drainage-tube up to the point of the disease, carry the drainage-tube on the end of a stiff probe up to the diseased vertebræ. Following this line of treatment, I have observed that patients do well. Unless you can remove all of the diseased tissue do not curet. Puncture, wash and drain.

If we find when we cut down upon a joint that it is extensively diseased, excision, of course, may be necessary. In all abscesses of joints, which do not show a tendency to absorb, which seem to be tubercular, or joints in which the capsule is ruptured, or the abscess is burrowing, I have freely incised, and I think all these cases should be immediately operated upon for two reasons. In the first place, a small incision is made to introduce the finger, and after introducing it you can intelligently explore and ascertain the amount of disease or pressure. If you find the disease is extensive, then excision may be necessary or erosion, or whatever procedure we decide upon after we have entered the cavity. I think in cases of all joint abscesses, as a rule, we had better operate, except possibly in those which cause no disturbance, and do not increase in size, and I am now operating on all.

TREATMENT.

After the excision is completed, or the abscess has been thoroughly curetted without an excision, in either case the joint should be thoroughly injected with pure carbolic acid which is allowed to remain in the cavity from one to two minutes, after which the carbolic acid is washed away with pure alcohol, and finally the cavity washed with a 2 per cent. solution carbolic acid. A glass drainage-tube, as large as the wound will take, is inserted down to the bottom of the cavity. The tube should be just long enough to be flush with the skin, and through it the packing is done, instead of packing the wound as in former practice. This large glass tube acts as a speculum through which at subsequent dressings observations can be made of the condition of the wound and deeper structures. It holds the soft part away and gives the bone an opportunity to granulate up until the tube is pushed out, when a smaller and shorter tube can be used. I look upon this use of carbolic acid and the large speculum as one of the most valuable advances we have made in the treatment of abscesses during the century. Abscesses abounding in Scarpa's triangle should never be opened at that point. An incision should be made along the femur, just below the great trochanter, and carried down to the neck of the bone where the abscess can be observed at this point. This gives the surgeon an opportunity to use his finger for exploration, and if excision is necessary, his incision is in the right place. Knowing that a child lies upon its back twelve hours out of the twenty-four, we can readily see that incision in Scarpa's triangle would not admit of drainage, and burrowing of pus always attends the opening of these abscesses at that point.

To get a clear idea of the pathological conditions present, I have prepared several pathological specimens selected from a large number of photographs to illustrate the subject, and showing the results of abscess or of tubercular maceration of bone.

The reasons why we operate are: (1) to save years of treatment and suffering; (2) to intelligently explore; (3) to get rid of foreign material by drainage; (4) to avoid ameloid disease of the liver and kidney by infection; (5) to prevent burrowing into important structures, such as the peritoneum. I have seen a psoas abscess work into the peritoneum, into the bladder, and into the pelvic cavity. I have seen the quadriceps group of muscles destroyed by the burrowing of pus; (6) to prevent destruction of bone by maceration which leads to extensive

destruction; (7) to remove sequestra if present; (8) to apply the scientific rules laid down both by the surgeon and the pathologist.

When to operate. When the capsule is ruptured in rapid osteomyelitis with joint destruction. When abscesses appear at points where they must burrow to other tissues and cavities. For instance, an abscess rupturing anteriorly, in hip-joint disease, discharges into the iliacus internus muscle. All tense abscesses should be operated on. In the presence of dead bone we should always operate. We should operate on rapidly increasing abscess and in joints filled with purulent and tubercular material. We should operate in cases of repeated accumulations or multiple abscess. (9) We should operate in feeble children always; (10) in rise of temperature; (11) when in doubt and for diagnostic purposes.

WHEN TO OPERATE.

First—Always when the capsule of the joint is ruptured.

Second—In rapid osteomyelitis, or dual inoculations with joint distension, causing pain.

Third—Abscesses appearing at points where they may burrow to other important structures, and to cavities, *e.g.*, anterior rupture of the hip-joint; the discharge in such cases takes place into the iliacus internus muscle, and at once burrows into the pelvic cavity. Tubercular or purulent disease of the wrist-joints; discharging among the flexor or extensor tendons, destroying, in such cases, if left to nature, the muscles of the forearm and the tendons in the palm of the hand. Large abscesses in Pott's disease of the spine, which are likely to rupture into the peritoneal cavity, the bladder, rectum and pelvis of the kidney. Retropharyngeal abscess in cervical Pott's, which should always be opened externally to prevent infection of the lungs; fluctuating tumors in dorsal Pott's, which are likely to penetrate the pleural cavity or mediastinum; rupture of the capsule of the knee-joint superiorly, the abscess discharging underneath the quadriceps group of muscles; the same is also true when burrowing takes place from any joint. In ankle-joint disease, where the abscess is ruptured posteriorly burrowing upwards behind the tendo-achilles, finding an outlet often three inches above the joint; such joints cannot drain, owing to the location of the sinus.

Fourth—All tense abscesses, because one can never tell in what direction burrowing will take place.

Fifth—Always when carious or necrosed bone is present.

Inasmuch as this can never be determined until the abscess is

opened and intelligently explored, I believe that nearly all abscesses should be opened and intelligently explored with the finger, to determine this most important complication; certainly, in all abscesses where the presence of dead bone might be suspected.

Sixth—Rapidly increasing abscess.

Seventh—Joints filled with tubercular or purulent material. Drainage at the lowest point and the washing out of the joint is certainly a rational scientific procedure.

Eighth—Repeated occurrence of abscess and multiple sinuses.

Ninth—Abscesses in feeble children, with rise of temperature.

Tenth—In every abscess with rise of temperature.

Eleventh—When there is doubt as regards diagnosis. It is safer to explore and drain than to leave the condition to nature.

In my opinion, it is the best practice where abscess is present in the joint, to follow up the case with appropriate treatment. When it is impossible to determine the amount of disease that is present, or where the abscess is located, it is better practice to operate on the abscess and intelligently explore it. I have put my finger into a joint and found abscess not only in the joint itself, but external to it. I found the joint diseased and a focus of disease located in the epiphysis.

A case occurred in the Bellevue Hospital, and I secured the specimen from the University. The man had on him the mark of a perineal strap and other evidences that he had worn a hip splint of some description. He lay upon the table with his thigh pepper-boxed with sinuses, and when the joint was finally dissected out, one of the students presented the specimen to me; I made a section of it, and have the photographs of the specimen here (see Figs. 7, 8.) This man had suffered from intracapsular fracture. He was thirty years old. The head of the bone became consolidated in the acetabulum, with the neck of the bone in the new articulation, which had been formed by the great trochanter, lying against the neck of the bone. I found a normal articulation, as you will see, between the neck and great trochanter. I found the head of the bone was consolidated in the acetabulum. Cases of this kind should be operated upon and the finger introduced. With the curet used a few minutes one could cure such a case. The prolongation of treatment would not do any good, and the patient might die of infection, as this one did.

In another case, treated by one of my colleagues for several months, I proceeded at once to follow the sinuses down, and found that the abscess had burrowed along up the radius and ulna, and something like four inches of bone were destroyed. I immediately removed all of the diseased tissue, several inches of bone, shortened some of the tendons, and got a fairly good hand. If this case had been operated on early it would not have been necessary to remove four or five inches of the radius and ulna.

Recent examinations have proven that 90 per cent. of all abscesses which at first might have been tubercular were purulent. In other words, a dual inoculation had taken place. From the fact that 90 per cent. of so-called simple tubercular abscesses sooner or later become purulent they should be drained early.

62 EAST 34TH STREET.

DISCUSSION.

Dr. ROSWELL PARK.—Those of us who know Dr. Phelps will not be surprised at anything in the way of force or incisiveness of treatment displayed by him in the discussion of any subject. I think his paper is exceedingly characteristic and proportionately helpful to all who have heard it. He has alluded to the distinction between tubercular disease and rheumatism, and it is very necessary to insist on this distinction because, even today, I get very few cases of joint tuberculosis in my clinic that have not at some period of their history been considered rheumatism; moreover, one-half the cases are stigmatised as such when they come to me. No distinctively rheumatic lesion ever suppurates. Yet cases come to us riddled with suppuration that are still called rheumatism. In the same way cases of acute osteomyelitis are mistaken for rheumatism. Even when bone destruction and spontaneous opening have occurred, they are still called rheumatism. No purely rheumatic lesion suppurates; it takes a secondary or mixed infection to produce pus formation. As I was noticing the doctor's charts and illustration, I could not help thinking of the length of time it has required to get the pathology of tubercular joint disease into the minds of the American profession. Twenty-five years ago, when I was graduated, we had a teacher who made the positive assertion that tuberculosis never occurred in bone; and I made a notation to that effect in one of my text-books. That was a fair sample of the best understanding of the subject at that time. I shall never forget the profound impression made on my mind about twenty years ago, when the American Medical Association met in this city, I being here as the youngest delegate, by Prof. Henry Smith's paper, in which he called attention to the fact that Nelaton had distinctly described all the lesions which we know today as those of bone tuberculosis. A few years later when I could secure Nelaton's

paper I found the illustrations equal to anything in my possession or in Dr. Phelps's today, lesions of which the American profession were decidedly ignorant. It has taken a long time to introduce a knowledge of the pathology of this disease among the American profession and Dr. Phelps has done great service by insisting on clearer notions regarding its pathology. With what he has said I can find no fault, and have no occasion to differ.

With regard to treatment, he has laid down indications when one should operate and when one should not. I have been in the habit of telling my students that I did not wish to be understood as teaching that there was one surgery for the rich and one for the poor. I believe that tuberculosis may be self-limited, and in time a recoverable disease; that we may have recovery without much, if any treatment. At the same time, I believe that to cure a bad, nonoperative case you must have an immense amount of patience, time and intelligence, factors which a certain class of hospital cases cannot command owing to want of money. So I have occasionally permitted myself to operate on a poor child and resect a hip-joint early, when I would not think of doing it in a wealthy patient who could afford endless rest in bed, change of climate, and the like, because I considered it the greatest kindness that could be done to the patient. I think in case of the average child, where the mother is unable to give the necessary care and attention, that it is better to operate early and let the child get well, and thoroughly well, even with some shortening of a movable hip than to subject it to almost endless confinement in bed and braces. I think it is a defensible proposition that in these cases there is one kind of surgery for the wealthy and another for the poor; and one must adapt his devices to the needs and social condition of the patient. I think that the greatest good will be done to the greatest number of hospital clinic cases by insisting on early, rather than late operations.

I might add that, with Dr. Phelps, I believe in the local nature of this disease in the majority of cases; that tuberculosis and the diseases especially characterised by infectious, granulomatous formations, such as cancer, have many points in common; that these diseases in nine out of ten cases are local in the beginning. Moreover, in this we are also confronted with the same unpleasant necessity for repeated operations as in cancer.

Dr. Park then presented a number of cases illustrative of his remarks.

Dr. BERNARD BARTOW insisted on the necessity for early diagnosis and treatment. In most cases the disease is too far advanced and the most favorable period for attacking it is passed before the case comes to the surgeon. The condition of partial disability, permitting more or less movement of the part, is one of the most efficient factors in the extension of the diseased

area. It is only among the more intelligent people that the condition is recognised and referred in the incipient stage. It is not uncommon to have the parent make a diagnosis of joint disease, which the physician dismisses too lightly, thus affording opportunity for its further progress. The signs are so distinctive in the early stages that there is no reason for overlooking them by a person of moderate intelligence. Interference with joint function, whether the lesion be in the joint originally or in the bone, manifested by limitation of movement in all directions is the earliest and most characteristic symptom. He considered the bone to be the original seat of infection almost universally, especially in cases of children, and the joint involvement secondary. Physicians should not be so disinclined to believe that moderate impairment of function may be due to tubercular trouble. He should be more on his guard against it than of any other condition that can produce lameness in children. This is particularly striking when we take into consideration the number of tubercular lesions discovered in patients who die of other troubles, tuberculosis not being suspected. He considered hip-joint disease and Pott's disease of the spine as very frequently a secondary infection to a generalised tuberculosis.

Dr. EDWARD J. MEYER presented cases illustrating conservative treatment, the first being a man who entered the County Hospital two years ago, bed-ridden, with numerous discharging sinuses, some spasm of the psoas; lordosis,—a most pitiable condition generally. He was advised against operation and simply desired to live as long as he could and die in peace. He was placed under the excellent hygienic conditions that obtain at the County Hospital and treated by local scraping, thorough cleaning daily, tonics, and is now practically well with no shortening. He has been advised against anything in an operative way. He was kept in bed with absolute rest and some traction.

Case No. 2 came into the hospital eighteen months ago suffering from tubercular spondylitis in the cervical region. The locality discouraged any attempt at operative interference, so the sinus was curetted without trying to reach the focus. He had been treated with sunlight, hot air and good tonics; was kept absolutely at rest in bed, but no jury-mast. Of late he has been treated by cleanliness and tincture of iodine, and is now in fairly comfortable condition with no active lesion at this time. There is now sufficient sclerosis to support the head without a jury-mast.

In case No. 3, the location of the lesion had admitted surgical interference and the reporter had removed half the body of one vertebra, followed by complete rest in bed and tonic treatment. He had never worn a jacket. He has been in the hospital two years and is making a good recovery.

Local Anesthesia.

By F. C. FLOECKINGER, M. D., La Grange, Texas.

LOCAL anesthesia has incontestably conquered the field in surgical practice. The discoverer of this method, Corning, of New York, (*New York Medical Journal*, 1887, Vol. XLII., No. 12,) found by experience that after constriction of a limb and injection of a 4 per cent. solution of cocain muriate in the vicinity of a nerve trunk, peripherally from the constricting-coil, complete anesthesia supervened after the expiration of a few minutes.

Corning, however, applied this method only to the external cutaneous nerve of the arm, and his experiment fell into oblivion until Oberst of the Surgical Clinic, at Halle, undertook further experiments and published his results. Oberst demonstrated that it is quite unnecessary to employ a greater strength of cocain than a 1 per cent. solution, and he maintained that the analgesic effect is due chiefly to the pressure of the constricting-coil, and the resulting complete interruption of the circulation—*i.e.*, artificial ischemia. Pernice published Oberst's experience in the *Deutsche Med. Wochen.*, 1890, No. 14.

Among the physicians who have been conspicuous for their services in this field, Schleich, H. Braun and Otto Maur deserve especial mention; but it would overstep the limits of my space to give all that has been said for and against this method by the physicians who have occupied themselves therewith.

The method extends to the extremities and penis, or, in other words, to all portions of the body which may be rendered ischemic by constriction. It is astonishing how little country practitioners have occupied themselves with this method, when the latter is so simple, and, when a 1 per cent. or 2 per cent. solution of nirvanin is used, so completely devoid of danger. Some colleagues, perhaps, have made a trial of this method without securing the desired result; but in these cases the blame is to be attributed to defective technique. One must learn to use this method, and I leave it for the clinicians to show if my words are not correct. That it is also necessary for the physician to have the anatomy of the nerves in his head, hardly needs to be mentioned; and a few trials combined with patience will be crowned with success in a short time. I have demonstrated these methods to several of my colleagues, and they have marveled at the facility with which good results are obtained.

When the subject of local anesthesia was in its initial stages, cocain was used in strengths of 4 per cent., 3 per cent., and 2 per cent., and cases occur in literature in which the anesthesia was accompanied by toxic phenomena. For this reason, many physicians have feared to apply this method. Later eucain was introduced into practice and used in many clinics. Wohlgemuth, in a discussion before the 27th Congress of the Deutsche Gesellschaft für Chirurgie, stated that eucain possessed no advantage over cocain, and did not produce as good anesthesia as the latter. All these disadvantages were obviated by the introduction into practice of nirvanin. My space does not permit me to go more closely into the physiological action of this preparation, and I, therefore, refer the reader to the literature which has appeared on this subject, and I shall only remark here that nirvanin is ten times less toxic than cocain, and further, shows antiseptic qualities, with the result that solutions of it may be preserved for a long period without spoiling.

The operations which I have performed under anesthesia by nirvanin injections by the aid of the Oberst-Braun method, since the publication of my first article are as follows: 28 cases of panaritium of mixed nature; 2 cases of lipoma of the extremities; 1 case of osteomyelitis with necrosis of the tibia; 1 case multiple ligation of the branches of the greater and lesser saphenous veins; 1 case of disarticulation of the thumb at the metacarpophalangeal joint; 6 cases of plegmon of the palm of the hand—septic nature with abscess formation beneath the deep palmar fascia; 4 cases of ingrown nail; 4 cases of circumcision.

I will here discuss the cases so far as may be necessary without giving case-histories, for the latter would transcend the space which stands at my disposal.

In ordinary cases I apply a 2 per cent. solution of nirvanin, and in extensive operations, in which a large amount of injection-fluid must be used, 1 per cent. and $\frac{1}{2}$ per cent. solutions suffice. As a solvent for nirvanin, I employ a decinormal salt solution with addition of a little muriate of morphia to lessen the pain of the injection.

In order to open felons painlessly, I make use of the following method: The finger concerned is encircled with two turns of a thin rubber tube, one inch from the site of the median-lateral incision. After waiting a few moments a second rubber tube is applied behind the first one, which latter is then removed. The second tube produces a greater degree of constriction than the

first. I employ this method in all cases because I have observed that to constrict too tightly with the first tube causes too severe pain. In general the patient immediately complains after the constriction is applied of marked pressure pain, but this is abated in a few moments. After the constriction of the limb, a syringe holding 10 c.c. with a fine nozzle, having a sharp point, is filled with a 2 per cent. solution of nirvanin, and the injection is made laterally in the aponeurosis of the finger. In order to render the first puncture painless I employ the chlorid of ethyl spray. The needle is introduced distally from the constricting tube in a peripheral direction, and the fluid slowly injected. Quite an amount of pressure is necessary in order to empty the syringe. After practicing the injection on one side of the finger the process is repeated on the other side and the operator waits for a few moments. It is difficult to state the exact interval of delay necessary before operating, as this depends upon the degree of inflammation, and in one case I was obliged to wait twenty-three minutes before I could carry out a painless incision. Patients often complain for hours over persistent pains at the place of constriction.

One portion of the *modus operandi* is of importance; this is, the application of the constricting tube which should occur as far peripherally as possible, as thereby the anesthesia will appear sooner and last longer. On an average I was successful with one grain of nirvanin, and in no case did I observe toxic phenomena. The closer the rubber was applied peripherally, the less injection fluid was required. If the constriction was applied at the base of the finger, four punctures were necessary on the average, viz.: two dorsal and two palmar. The needle should not enter too deeply in order to better encounter the direct surroundings of the nerve, for the latter lie upon the dorsal and palmar aponeuroses. In my first attempts in this field, I introduced the needle as deep as the periosteum, and much more time was required before analgesia set in, while the latter was not complete. However, it is self evident that after extinction of the sensory activity of the main trunk the function of the peripheral branches is also lost.

In both my cases of extirpation of lipoma nothing occurred worthy of mention, save that both growths developed after trauma. The latter consisted of a blow without solution of continuity of the skin. One tumor was seated on the lower extremity, two inches below the point of passage of the super-

ficial peroneal nerve, and had the circumference of a silver dollar. The first constriction of the leg was applied one inch above the tumor, and the second was applied in front of the first. The first was then removed and a single injection of 2 per cent solution of nirvanin produced complete anesthesia of the integument. A second syringe was emptied at the base of the tumor, and after waiting four minutes the operation could be carried out painlessly.

The other tumor was seated on the volar surface of the forearm, somewhat peripherally before the point of exit of the palmar cutaneous branch of the median nerve. Its excision was painless.

The opening of the abscess of bone in the tibia offers certain interesting points. Constriction of the limb was practised below the knee joint, and in all there were injected 50 c.cm. of a 1 per cent. solution of nirvanin. Injection was made in the vicinity of the greater saphenous, deep peroneal and superficial peroneal—before this breaks through the aponeurosis—directly before the constricting coil. The incision in the tissues was wholly devoid of sensation, and only the penetration of the probe into the carious bony cavity was somewhat painful. I injected a few drops of a .5 per cent. solution into the inflamed periosteum after previously treating the site of the puncture with a 20 per cent. solution. After waiting a few minutes I could carry out the chiseling of the bone with a complete absence of pain. The scooping out of the bony cavity with a sharp spoon was also completely painless.

In ligating the branches of the vena saphena major and minor, in the leg, I injected directly into the vicinity of the field of operation, as this lay directly below the constriction coil. The greater saphenous nerve and the tibial nerve run, after their passage through the aponeurosis, directly with the major and minor saphenous veins, and extirpation of a piece of vein, an inch or so in length, could be carried out in perfectly painless fashion.

In disarticulation of the thumb four injections were made at the base of the thumb, and one injection directly among the ligaments which form the joint. After nine minutes delay the operation could be performed in a perfectly painless manner.

The opening of the abscesses in the palm of the hand required a good deal of injection fluid, so that the strength of solution used was but $\frac{1}{2}$ per cent. Constriction was made at the wrist,

and the needle introduced into the deep tissues, so that the deeper seated nerve filaments could be rendered analgesic.

It is true that injection into the deeper tissues requires some force, though I could obtain no advantage from the pumping apparatus used by Prof. Matas, at the New Orleans Polyclinic. For a clinician who has to operate several times in this manner in rapid succession, this method may be well to use, but the country practitioner must know how to help himself by the simplest methods.

The method of injection in operating upon ingrown nails offers nothing special for discussion; it is only necessary to inject one syringe full beneath the nail and into the nailbed.

In operating for circumcision the constricting coil was applied directly above the sulcus coronarius, and the injection made directly into the tissues of the penis. By this means both lamina of the prepuce are made insensitive. All operations may be made painless by the use of the average of 2 per cent. nirvanin solution.

In conclusion, I will briefly remark that this method gives excellent results if the technique is under control, and the operator has sufficient patience.

LITERATURE.

- Braun (Leipzig), Centralblatt für Chirurgie, 1897, No. 17.
 Ruge, Charité Annalen, 1896.
 Otto Manz (Frieberg), Centralblatt für Chirurgie, 1898, No. 7.
 Paul Arndt (Antwerp), Centralblatt für Chirurgie, 1898, No. 16.
 Schleich, Schmerzlose Operationen, Berlin, 1898.
 Briegleb (Worms), Zeitsch. für Prak. Aerzte, 1897, No. 9.
 Briegleb (Worms), Kinderarzt, 1897, No. 11 and 12.
 Rubinstein (Berlin), 27th Congress der Deutschen Gesellschaft für Chirurgie.
 Wohlgemut (Berlin), Discussion.
 Mankiesvics (Berlin), Discussion.
 Gottstein (Breslau), Discussion.
 Reclus La Cocain in Chirurgie, 1895.
 Sudek, Deutsche med. Wochenschrift, 1898, No. 8.
 Krieshaber, Gaz. med. de Paris, 1874, p. 293, 307.
 Vernel, Gaz. de Hospitaux, 1874, No. 103.
 Neuber, Untersuchungen und Erfahrungen über künstliche Blutleere, Disc., Kiel, 1878.
 Iverson, Künstliche Ischemie bei Operationen, Kiel, 1873.
 Le Fort, Gaz. de Hospitaux, 1874, No. 103.
 Stokes, Dublin Press and Circular, 1874, p. 248.
 Karenski, Therapeutische Monatshefte, 1888, p. 168.
 Floeckinger, American Therapist, July, 1900.
 Corning, New York Med. Journal, 1887, Vol. 42, No. 12.

RIESMAN (*American Journal of the Medical Sciences*, July, 1901,) in an interesting description of a case of primary tubercular pericarditis, emphasises the fact that cases of adherent pericardium ascites is usually noticed before the appearance of edema of the lower extremities.

Cough and Its Treatment in Pulmonary and Laryngeal Tuberculosis.

By HENRY LEVIEN, M. D.,

Medical director and physician-in-charge of The Liberty Sanitarium, Liberty, N. Y.

IN THE way of preface, I will say that my apology for bringing this rather trite subject to the attention of the medical profession, is the opportunity I enjoyed through constant personal observation on fifty patients under my care in the course of the last twelve months. Circumstances brought me in quite close, perhaps too close, contact with the above number of tuberculous patients, while in the capacity of physician-in-charge of a sanitarium for the treatment of persons suffering from pulmonary and laryngeal tuberculosis.

Of all the features, physical and mental, which make up the sum total of a consumptive, cough is the most distressing and prominent symptom, and as such, should engage the mind of the physician to a larger and deeper extent concerning its amelioration and suppression in the treatment of tuberculosis. It is the psychical as well as the physical tormentor of the unfortunate consumptive. It is a well-known fact that tuberculous patients to the exclusion of all others will never admit that they individually are afflicted with this dreadful disease; they are suffering from a "slight cough," which must soon pass away.

"If not for the cough, I would feel perfectly well," says one. "Oh, doctor, if you would only stop my cough, I would not feel sick at all," says another. Hemoptysis, even severe hemorrhages, are quite often forgotten; night sweats, though disagreeable, are seldom the subject of complaints—they would yet consider themselves only victims of a bad cold, which manifests itself in this wretched cough. Though sent by their respective physicians to a sanitarium where only tuberculous patients are treated, yet on entering the institution, they will always ask not to put them in close contact with "consumptives," because they have not this disease; they are only coughing slightly, having contracted a severe cold. This illusion is rather in some cases, especially in incipient tuberculosis very fortunate, as the patient is hopeful of a speedy recovery and struggles energetically for the restoration of his health. Such being the case, our efforts must be directed towards amelioration and suppression of cough, to keep up that favorable illusion.

Again this distressing cough of consumptives, if not checked

in some way, wrecks the wasting constitution unmercifully. It deprives them of sleep, which rest is so indispensable for healthy and sick people in general and for those afflicted with tuberculosis in particular.

Cough is very often the cause of retching and vomiting. In the first instance, the afflicted feels wretched; in the second, he is getting exhausted and disgusted with his miserable existence.

Though not by any means the sole cause of pulmonary hemorrhages, yet by causing hyperemia of the lung tissues and at the same time interfering with the normal pulmonary circulation, the venous return, cough thus becomes the executor of pulmonary hemorrhages. Paradoxical as it may sound, yet we would entertain an idea that if pulmonary tuberculosis and phthisis in general could have existed without coughing, hemorrhages would seldom be heard of. So far as our observation goes, hemorrhages seldom arise spontaneously. This may be the case with the first one, the rather unexpected herald of some trouble, but when the disease is more or less advanced, the hacking dry cough is the unwelcome messenger of the "ruby" as sanitarium inmates, or "lungers" are wont to name hemorrhage, in the way of shortening it, we suppose.

Because of this cough many a patient shuns society and as in the case of sanitariums avoids taking their meals in the general dining room, and if not ameliorated, this condition may lead to dejected spirits and even melancholia. There is hardly any difference as to the stage of pulmonary tuberculosis, so far as cough is concerned. They cough in the first stage, more so in the second, when every inspiratory act is a coughing fit, and still more in the third stage, unless the patient by this time was well taken care of, availed himself of the requisite climatic and hygienic surroundings, which might have been the combined factors in drying up the cavity or cavities.

What are the means at our disposal for suppressing this cough? Do the generally administered pulmonary, or as some would have them, gastro-intestinal, antiseptics like creasote and the many coal-tar and sulphur products tend in some way to diminish the cough? In my experience, they do not. Will oils and fats in general do anything towards quieting cough? They may in a general way and in the long run, so to say. That is in addition to plenty of sunshine in the open air, respiratory gymnastics, wholesome and plenty of nourishment, and hydropathic treatment systematically carried on, they may assist in clearing the

bronchi and even the alveoli of the superfluous mucopurulent secretions and thus create a feeling of well being, but by the time this is reached, the patient might be considered as one who has fully or nearly recovered from the sickness as a whole and the cough in consequence; but we need something which would act more speedily and in this way hasten the happy outcome.

Inhalations have their sphere of beneficial action upon inflamed and irritated mucous membranes, but the benefit derived from them is quite temporary, and we would not advise this means as a remedial agent to relieve a distressing cough. Inhalations may subserve in "curing" phthisis, with which we are not concerned in this discussion.

Recourse must then be taken in remedies which would act directly and immediately, without at the same time carrying deleterious effects upon the system as a whole.

Hypnotics or nerve sedatives, like chloral, the bromides and the many coal-tar derivatives, which have their especial value in other conditions, should in our opinion never be administered, because intended as they are for quieting the reflexes in certain nervous affections, will not benefit diseases where positive pathological changes are the sole cause of these manifestations. Besides nearly all hypnotics are cardiac depressants, and such remedies should be administered with special caution if given at all, as the heart's action in consumptives is always below par and requires often a whipping up and stimulating.

Resource must be found then in the class of analgesics and anodynes, and then opium in its different forms heads the list. Considering the different preparations and their salts, chronologically so to say, we learn that opium per se is not suitable because of its constipating effect and undesirable sequelæ left after prolonged use.

Dover's powder was at one time an anchor and used extensively. Pulvis ipecac compound, consisting as it does of opium and ipecachuana, is intended to meet two purposes; to cause slight nausea and thus promote expectoration, then to suppress cough by the opium contained therein. We hardly believe it is suitable as a sedative in pulmonary tuberculosis, for in doses which should be effective, the nausea will exceed its limits and cause vomiting, a very undesirable effect, and the opium will then come in too large amounts for the necessary sedation. It may have its place in coryza, probably in influenza, but not in tuberculosis. Morphia would do away with nausea, but the

morphia habit and its after-effects should not be lost sight of and therefore should also be relegated to other spheres.

Codeine kept its place in therapeutics as an old tried remedy in suppressing or quieting any kind of coughs. It does so, but the constitution gets so used to its effects when it is administered for any length of time, that we must increase the dosage quite often and extensively.

Heroin is a recent addition to our therapeutic armamentarium. We have given it a thorough trial and found it superior to all previously enumerated drugs. This remedy is an improvement upon and a modification of morphia, especially adapted for the treatment of the respiratory apparatus. It does not replace morphia in all cases; it substitutes it in pulmonary affections only. It has a sedative effect upon the respiratory tract, produces restful sleep, does not constipate, and so far as my experience with the drug goes, does not produce heroin habit. My attention was called a few months ago and urgently requested to give its salt, heroin hydrochlorate, a trial, administering it in a weak solution of hydrochloric acid; I thought it did act in a more efficient way than the heroin plain. But with heroin and heroin hydrochlorate administered *per se*, I had the difficulty in establishing the requisite or standard dosage. Some clinicians have benefited their patients with very small doses as 1-20 of a grain. Tablets are manufactured in the market in doses of 1-12 gr. In our experience neither one nor the other were sufficient to exert the right beneficial effect, and had to order tablets in doses of 1-8 of a grain, administering them one at bed time and during the day *pro re nata*. This seemed to be the proper dose without carrying with it any deleterious after-effect.

In my college days, I heard Prof. Wm. H. Thomson repeatedly urging upon us his opinion that a combination of adequate remedies will act better than any single one given in large doses, and following his advice later in my general practice, I believe I reached my ends better and drugged my patients less, because by combining remedies, each is given in smaller doses, especially when narcotics or other poisons are in question. It was with a two-fold feeling that I met a new remedy, or rather a preparation which is a combination of remedies, destined for the treatment of disease of the respiratory tract. I always had misgivings towards new preparations; but as this preparation, glyco-heroin, seemed to me in no sense a patent medicine, having the contents open before the medical profession, I thought it

worthy of trial. The combination which makes up the glyco-heroin should appeal to any one who is treating patients afflicted with pulmonary and laryngeal diseases. The composition of glyco-heroin is in our opinion quite a happy one. Each teaspoonful contains 1-16 gr. of heroin, quite a small dose; hyoscyamus, 1 gr., an adequate addition, as it checks night sweats and acts favorably upon reflexes; ammonium hypophosphite, 3 grs., which is an excellent stimulating expectorant without producing nausea; white pine bark, a tonic and a slight antipyretic), with balsam tolu, glycerin and aromatics. A teaspoonful of this preparation, I found to be a definite dose, the effects of which lasted for three to four hours. Two weeks' trial on six patients convinced me of its utility and superiority over heroin and heroin hydrochlorate, administered *per se*.

My clinical observations in sanitarium treatment of pulmonary and laryngeal diseases cover fifty cases, treated in the course of twelve months, and to make my report on this particular subject quite comprehensive and convincing, I'll have to depart from the generally accepted mode of tabulation and present it in the shape of three periods, corresponding to the time and number of patients when one or the other remedy was administered.

Time. 1900.	Number of Patients.	Drug Administered.	Results Observed.
May, June, July, August.	20	7, Pulv. Dover. 13, Codeine sulph., $\frac{1}{4}$ gr.	Not satisfactory. Effect upon cough favor- able, but the doses had soon to be increased.
September, Octo- ber, November and December.	14	8, Heroin, heroin hy- dro., dose $\frac{1}{8}$ gr. in acid water. 6, Glyco-heroin on trial.	Quite favorable, but I al- ways felt that dose was too large. Smaller doses were not effective.
1901.			
January, Febru- ary, March, April, May (part).	16	Glyco-heroin (Smith) exclusively.	Very favorable.

We do not deem it necessary to tire the reader with reports of cases in more detail, but we beg to convey our impression that since we started to administer glyco-heroin to our patients as a routine, directing them to take a teaspoonful at bed time and during the day as occasion required—severe cases should take a

teaspoonful every two or three hours—a decided improvement in the general well-being of all was felt. In the course of a few weeks, one would hardly believe it was an institution for, or the abode of consumptives, whose business is, so to say, to cough. In the stillness of the night, one could hardly discern any hack or even loose cough, and it convinced us that our patients were enjoying a peaceful and refreshing sleep. It is quite grateful to note that after one week's systematic administration of this remedy in conjunction with out-door life, pulmonary exercises and good dieting, the cough, pain in the chest, pleuritic pains and dyspnea are considerably ameliorated and night sweats entirely disappear. We believe it will not be amiss to cite at least one recent case:

Mr. B., aged 20; New York; law student, previously book-keeper and salesman. On December, 1900, he caught a cold, coughed slightly; gave it no attention. On February 1, 1901, had an attack of hemoptysis, which lasted but a few days, and but little attention was paid to it. On March 1 he felt pain in the right side of chest. Next day pain increased; had fever. In the evening, a third attack of hemoptysis, and on the third day quite a severe hemorrhage. This kept him in bed for two weeks and in the early convalescence, Dr. M. Moskievitz, his attending physician, sent him to our sanitarium with the history and diagnosis of tubercular pleurisy and consolidation of the right apex anteriorly and posteriorly. Upon microscopical examination of the sputum numbers of tuberculous bacilli were found. He was suffering besides from cardiac debility and dyspnea, and was so weak that two attendants were necessary to bring him up to the sanitarium.

March 30, 9 a.m., examination after one night's rest: Pulse, 120, slightly intermittent; temperature, 97.8°; respiration, 36; weight, 121 lbs., previous weight, 136. Physical examination: on auscultation, right lung, upper two-thirds anteriorly, suppressed respiration and in areas where respiratory sounds were audible, they were bronchial in character. No respiratory sound posteriorly, owing to serofibrinous exudation and thickening of the pleura. Considerable pain in the same side on respiratory effort. Left lung, shallow repressed respiration with moist crepitant and subcrepitant râles. On percussion, dullness under right clavicle, and very dull, approaching flat percussion note posteriorly below the angle of scapula and axillary line. Vocal fremitus increased anteriorly. Heart sounds apparently normal, a state of cardiac palpitation existing. Sputum examination revealed the presence of tubercular bacilli.

Diagnosis: Tuberculosis upper two-thirds of lung anteriorly and posteriorly. Tubercular pleurisy, slight effusion, thickening and recent adhesions of the right side.

Treatment: Rest in bed; windows open day and night. Local treatment consisted in sponging with tepid water, thorough friction, and application of iodine by painting with tincture iodine. Internally, strychnin for the cardiac debility, malt-phosphate as a general tonic and glyco-heroin (Smith) for the painful cough and pain in the right side.

April 7, cough much ameliorated, sleeps well, not disturbed by coughing spells. Pain in the side almost entirely gone. Respiration twenty-four per minute and without panting on walking. Feeling well and strong enough to take short walks without fatigue. No night sweats; pulse, 100; temperature slightly above normal in the afternoon; gained $3\frac{1}{2}$ pounds in weight.

April 14, continues to improve; hardly coughs at all, dyspnea diminished. No night sweats, no hemoptysis; allowed longer walks; physical signs improving. Sleeps well. Weight, 127.

April 21, temperature normal. Quite healthy appearance, able to take gymnastic exercises, heart action much stronger. Appetite good; pain in the side disappeared, though the dullness is still noted. Pulse 96; weight 130 pounds.

April 28, improvement continues; hardly coughs at all. Takes glyco-heroin only at bed time. Left lung entirely clear of râles, consolidated areas of right lung gradually diminishing in size; no pain in the side, though respiratory sounds hardly audible as yet.

May 7, no night sweats; doesn't cough; climbs to top of Walnut mountain without fatigue. Pulse 90, full and regular; weight, 133 pounds. Effusion being absorbed, a feeling of well being prevails.

I had but two occasions to use glyco-heroin in other than tubercular affections, namely asthma. One case was bronchial asthma of a mechanical nature. The patient was a furrier by trade and whenever he would spend a day in his shop, he would get the attack in the evening; morphia hypodermatically, amyl nitrite by inhalation and other remedies would not control these attacks, which would torment him for hours at a time. On one occasion I administered one teaspoonful of glyco-heroin, repeated the dose in ten minutes and the attack was cut short as by magic.

The other case was one of cardiac asthma in a man 72 years old. He gets the attack mostly on retiring or whenever his feet get cold. He is suffering also from arterio-sclerosis and chronic interstitial nephritis. His attacks were also cut short by one or two doses of glyco-heroin, and in this I fully coincide with Dr. M. Manges, of New York, that heroin in general and glyco-heroin in particular, should exert a favorable effect on all forms of asthma with the exception of one of dyspeptic nature.

Conclusions—(1) Cough, though one of many features in the make up of tuberculous affections of the lungs and larynx should, however, receive special attention at the hands of the physician, because it is the most distressing and exhausting factor. (2) Of all the remedies and drugs in our experience, which would tend to ameliorate and suppress cough, we find in glyco-heroin an agent which to all appearances is a remedy par excellence, and we recommend its further trial.

On the Frequency of Asthenopia—Especially in America.

By LUCIEN HOWE, M. D., Buffalo, N. Y.

WE HAVE long since agreed that the term asthenopia shall be used to designate that familiar group of symptoms which includes discomfort or pain for near work with blurring of vision and perhaps some injection of the conjunctiva or lachrymation. But while we find this term convenient, it is also indefinite—especially so when we do not keep in mind the variety of asthenopia, whether accommodative, muscular, or central.

I. Remembering thus the general character of the term, the first fact to which attention is here directed is, that cases of asthenopia form one of the largest classes of any which we are called upon ordinarily to treat. Although this fact is so obvious, it is nevertheless difficult to demonstrate by figures, because the classification of diseases in institutions seldom or never includes the term asthenopia. It is possible, however, to approximate the number, for we know that nearly always asthenopia is associated with anomalies of refraction and of accommodation, and with muscular insufficiencies, and therefore the proportion of these cases gives with certain modifications, an indication as to the frequency of asthenopia. It is true that nearly all myopes and very many hypermetropes have no trace of asthenopia. But making allowance for these and also for those whose discomfort is trifling, there still remains so large a proportion of really annoying asthenopia as to make that group of cases in every enlightened country next in size to diseases of the conjunctiva and cornea. Indeed it is generally recognised that in private practice among the educated, the cases of asthenopia constitute by far the largest class.

II. Again, it is apparently the fact that the more annoying types of asthenopia, the muscular and central forms, occur more frequently in the United States than elsewhere.

As the term asthenopia is elastic, it would also be difficult to state the frequency of such cases in figures. I am not aware that any attempt has been made to do so, but it is an observation familiar to those who have had opportunities to compare the hospital or private practice in this country with that of England, France or Germany.

It is not intended to state that the average American is not as strong, in other respects, as his brother across the Atlantic. The contrary has been shown, as is well known, by Dr. P. C. Knapp and others. Dr. H. P. Bowditch has found from measurements of the American school boy that he is as good a physical type as the boy at Eton or Rugby. Dr. B. A. Gould in like manner found that our soldier was the physical equal of the European. Our athletes bring back at least their share of prizes from abroad and our yachtsmen have held the cup for over fifty years.

But, on the other hand, Javal has expressed the opinion to Roosa that asthenopia is more common in New York than in Paris, and this is also held by Bull, of Paris, whose extensive practice first on one side of the Atlantic and then on the other has afforded unusual opportunities for observation.

Important evidence on this point is furnished by Dr. George M. Beard in a monograph on *Nervous Exhaustion and Neurasthenia*, published so long ago as 1879. Most of the cases which he described are really types of asthenopia. In the first chapter he says, "there is a large family of functional nervous diseases which are increasingly frequent among the indoor classes of the civilised countries, and they are especially frequent in the northerly and easterly parts of the United States. The observations which compose the greater proportion of his monograph are carefully made and systematically arranged, and although some of the views advanced must necessarily be modified by the light of subsequent investigation, the conclusion which he reaches seems to be entirely warrantable.

He observes that the geographical distribution of this class of diseases is not everywhere the same; as they appear to be less common in Germany and Russia, Italy and Spain, more frequent in France and still more frequent in England. Above all, he considers neurasthenia to be an American disease and in that definition he includes, as before remarked, what we all recognise as forms of asthenopia.

The late Dr. Henry D. Noyes, of New York, presented as long ago as 1876, an analysis of 1079 cases of asthenopia which

came under his observation—rather a large number even for an industrious practitioner.

Personally, as I compare the experience of twenty-seven years' practice here, and that obtained during ten visits among our confrères in England and on the continent, the impression becomes stronger, as before remarked, that such cases are decidedly more frequent in the United States. Moreover, it is natural that this should be so, for the following reasons:

(a) *Carelessness.*—Americans use their eyes more under unfavorable circumstances than is done elsewhere. Our newspapers and periodicals are many times more numerous and larger than in any other European country. The print is often poor, we read more when traveling or wherever we happen to be, in a few minutes of leisure, too frequently regardless of proper illumination or other requisites for the natural use of the eyes.

(b) *From causes affecting the nervous system.*—It is a saying with the Europeans that while he makes money to live, the American lives to make money, and however that may be, the hurry and mental strain of our American life makes greater demands upon the nervous system than does the more quiet routine of life elsewhere. This fact also is so well recognised as to require no comment.

(c) *From causes affecting the digestive tract.*—It is probable that this is of some importance. Americans not only eat more meat than do continental nations, but we do not take time to masticate it properly, and there may be an insufficient amount of fluids ingested as compared with that in wine or beer drinking countries. The fact that dyspepsia in various forms and appendicitis are so common in America, also indicate that there is some factor here which exerts an unfavorable influence upon the digestive tract and indirectly thus upon various organs.

III. Even if there should be a doubt that annoying forms of asthenopia do occur more frequently in the United States than in Europe, there is no doubt concerning another phase of this subject, which is, that a larger number of these asthenopic persons do apply for relief in the United States. This is especially apparent to German or English ophthalmologists who are so situated as to have a clientèle including many Americans.

Thus, one of our most honored and illustrious confrères, located in a German university town, which happens to be also a resort for Americans, said to one visitor, "your American eye-doctors frighten patients into glasses, and then the

patients frighten themselves about them." In spite of an opinion from so distinguished an authority, it would seem that there are other causes which induce patients in America to seek relief sooner than patients do elsewhere. These are:

(a) The mental attitude of the average American in regard to glasses. He desires to see as distinctly as he can and prefers the inconvenience of glasses to any discomfort from asthenopia. This is true of American women also, young or old. This is even true, to as great an extent as is possible, of those other women of rather uncertain age, who naturally fear that the possession of a pair of glasses indicates that they are approaching middle-life. Especially is this objection lessened, when the optician assists in the self-deception by making the eye-glasses becoming or even ornamental.

(b) The average American practitioner is better supplied with appliances for detecting the causes and varieties of asthenopia than are his confrères in Europe. In addition to the all-important test case we find now almost invariably that he is equipped with an ophthalmometer, with a phorometer, together with other appliances for testing the static and dynamic conditions of the muscles, and occasionally has appliances for measurement of relative accommodation, which in Europe are to be seen only in a physiological laboratory.

When an American ophthalmologist visits his professional brethren in their offices in Germany, he is struck with the lack of appliances for properly testing this important class of cases.

(c) American ophthalmologists use these appliances to make more accurate corrections of ametropia and of muscular anomalies than is customary in Europe.

It may seem strange that the countries which have produced Helmholtz, Graefe, Donders and Javal should not also be those to carry into practice the important lessons taught at home. Apparently, however, that is not the case.

It required some time for American ophthalmologists as a class to be convinced that the correction of half or even a quarter of a diopter of astigmatism was of any importance. Gradually, however, the majority have reached that conclusion. We have learned that attention to the details of ametropia and of heterophoria, apparently insignificant, make all the difference, in some few instances, at least, between persistent headaches and perfect comfort.

(d) The skill of the optician assists to no small degree in the

treatment of these cases of asthenopia. In nearly all of our cities of any considerable size we now find one or more opticians who themselves grind spheres and cylinders accurately and promptly, setting the glasses in frames which are neat and comfortable.

They have long ago learned to make bifocal lenses, so that certain hypermetropes or myopes who have passed middle-life find such lenses one of the essentials of comfortable existence. And yet, even this simple appliance is exceptional, in a country where the theory of optics and the skill of the workman otherwise is as far advanced as in Germany. During the last year the writer of this, who wears bifocal lenses, attended the meeting of the German Ophthalmological Society in Heidelberg. Such glasses were so unusual as to attract attention and several of the members did not hesitate to express their curiosity by inquiries concerning them. We must conclude, therefore, that cases of asthenopia form not only one of the largest groups which we are called upon to treat, but that the proportion of severer cases is somewhat larger in America than in other countries, this being due to the injurious effects of our national habits upon the eyes themselves, upon the nervous and digestive system.

Also, it seems quite certain that a larger proportion of all the cases of asthenopia apply for relief in the United States than do so elsewhere, the reasons of this being the comparatively slight aversion of patients to the use of glasses, to the fact that the average American ophthalmologist is better equipped than his foreign confrères for detecting errors of refraction and of muscular balance, that he takes pains to correct even small variations from the normal condition, and that the American optician has much more complete appliances for grinding glasses accurately, and fitting them satisfactorily, than has the average optician of any other country.

133 DELAWARE AVENUE.

CLINICAL REPORT.

Preliminary Notes on a Case of Abdominal Aneurism.

By MARSHALL CLINTON, M. D., Buffalo, N. Y.,

Attending surgeon, Erie County Hospital; assistant attending surgeon, Sisters of Charity Hospital and Buffalo Children's Hospital; surgeon Pennsylvania R. R., etc.

W. H. G., aged 57; U. S.; carpenter; married. Admitted Erie County Hospital, July 8, 1901.

Family History.—Father died at the age of 65 of cancer of the face; mother died of congestion of lungs. Two brothers and

five sisters. One sister has female trouble, one died of consumption, one of heart disease, the rest all well and healthy. Has two children, both boys—one 19 years old at Craig Colony for Epileptics, the other alive and well.

Previous History.—Never has used alcohol or tobacco, has always worked hard at his trade, doing some painting occasionally. Has had measles and whooping cough when a child. Thirty years ago used to have attacks of vomiting at night after eating heavily. Four and five years ago had frequent attacks of jaundice which would be relieved by doses of Rochelle salts. Had dizzy spells frequently, fifteen years ago, and headaches at night. Two years ago was bothered with palpitation on exertion.

Present illness.—Four years ago was lifting a heavy piece of lumber where he felt something give way in his belly. Had considerable pain that night and the next day and managed to go to work again, working for six to eight weeks. One morning before rising he noticed as he passed his hand over his belly that he felt a lump on the right side. After he stood up and passed his urine the lump disappeared, so he put it out of his mind and did not notice it until in bed some nights later.

In the fall of 1900, was walking three miles to his home after a hard day's work, when he felt something give out in his belly and a severe pain followed. He sat down by the roadside and rested for fifteen minutes and the pain disappeared. As soon as he began to try to walk the pain would come back, so he was forced to take short walks and long rests, and in this way reached home. The pain stopped when he went to bed, and he got up the next morning apparently all right. Did light work for two weeks, when the pain returned and became a dull heavy ache while on his feet disappearing when he is in bed. On advice of his physician he came to Buffalo to be operated on for an enlarged gall bladder.

Examination.—Patient fairly nourished, and slightly jaundiced; temperature subnormal; walks with difficulty; pupils equal and react to light and distance; slightly deaf; tongue, slightly coated; heart, normal; lungs, normal; feet cold and slightly numb; pulse, 74; respiration, normal; abdomen shows a bulging mass in the right hypochondriac region, dome-shaped, four by two inches wide and cystic in feel. No pulsation can be seen or felt and no thrill or bruit can be heard over the mass or over the femorals.

Diagnosis.—Stenosis of the cystic duct and retention cyst of the gall bladder.

Operation, July 25, 1901.—An incision, four inches long, parallel with the border of the ribs and over the prominent part of the tumor down to the peritoneum revealed a dark almost black tumor adherent to the peritoneum. As the color was so unlike a gall bladder an aspirating needle was plunged into the center of the mass and was followed by a gush of bright, red blood through the lumen of the needle. Adhesions along the

lower border were separated to permit of better inspection and after the lower edge was freed, it was seen to have a distinct fibrous capsule and to pulsate. The needle introduced an inch and a half from the first point of entrance was followed by blood, as in the first trial. A patient effort was made to introduce silver wire through the needle, but the available wire was unsuitable in size and would kink as soon as the end struck the opposite side of the sac. The openings made by the needle were closed by holding the finger lightly over them for a few minutes, when a clot would form under the finger and the hole be plugged. It was possible to introduce the finger along the lower border of the sac in the direction of the abdominal aorta.

I believe it to be an aneurism of this vessel from the fact that my finger passed to the aorta, and that the aneurism is pressing on the anterior spinal roots, causing pain and difficult walking. With the patient's consent, further efforts will be made to introduce suitable wire and run a low galvanic current through the wire. This case is of interest to any surgeon from the fact that the lesion, though rare and unsuspected before operation, was detected from the fact that the dark color threw doubt into the operator's mind as to the nature of the mass.

466 FRANKLIN STREET.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

*Section on Ophthalmology, Otology, Rhinology and Laryngology,
June 17, 1901.*

REPORTED BY GEORGE F. COTT, M. D., Secretary.

AT THE last session of the Nose, Throat and Ear Section of the Academy of Medicine, Dr. E. E. BLAAUW exhibited a case of tuberculosis of the eye, with the following remarks:

I present to you tonight an apparently healthy young girl, 19 years old, who enjoyed good health up to December 20, 1900. Sometime previous she complained of pain and redness of the left eye. A wash and an ice bandage relieved her. She noticed flickering lights about December 21, for the first time. This sensation continued with different intensity up to the present day. Since December 20, she can see nothing with that eye. A cataract had formed within forty-eight hours without apparent cause. A trauma can be excluded. The first time I saw her

was on January 17, I found the pupil without reaction, a complete cataract, slight ciliary injection and somewhat lowered tension. The perception and projection was normal. The right eye was in all respects normal. Atropin enlarged easily the pupil. Even under enlargement no change in iris tissue could be made out.

At the same time I treated a lady, aged 42, who, being healthy, had had an inflammation of her right eye, thirteen and six years before, which did not last as long as this time. Examining her for the first time February 5, when her eye had been inflamed for at least six weeks, I found a central, irregular infiltration in the parenchyma of the cornea, and another opacity coming from the temporal side—the “sclerosirende keratitis;” tension was somewhat lower. Two weeks later a new infiltration in the upper part of the cornea had appeared with many precipitations on the membrana descemetii, which resolved within some six weeks still leaving a deep ciliary injection.

I claim that both cases belong to benign forms of tuberculosis of the uveal tract. Prof. Michel was the first to teach that half of the cases of spontaneous affection of the uveal tract are of tuberculous nature. They are primary tuberculosis of the eye, in so far as no other signs of tuberculosis in the body are to be found. Lues, rheumatism and gout are excluded here.

PROGRESS IN MEDICAL SCIENCE.

Therapeutic Notes.

EDITED BY NELSON W. WILSON, M. D., Buffalo, N. Y.

AN AGREEABLE DIURETIC.

WHEN one needs to give a diuretic the effect may be obtained and in a most pleasant and agreeable manner by giving the following Peabody mixtures, which were printed in the *Medical News*. Two solutions must be used:

R No. 1.	Acetate of potash	26.00	℥viiss.
	Bicarbonate of potash	12.00	℥iii.
	Water	240.00	℥viii.
Mix.	Label No. 1.		
R No. 2.	Citric acid	10.00	℥iiss.
	Water to make	60.00	℥ii.
Mix.	Label No. 2.		

Directions: To two ounces of water add half an ounce of No. 1 and a teaspoonful of No. 2 and give in 24 hours.

CALOMEL IN HEMORRHOIDS.

THIS drug is not only curative, but also prevents the plebitis which causes so much pain. For external hemorrhoids give laxatives, and powder with calomel; for internal hemorrhoids use calomel suppositories or an ointment of

R	Calomel	2.0	gr. xxx.
	Vaseline		
	Lanoline	āā 15.0	̄ss.

Add belladonna or opium if desired. Wash anus with boric-acid water after each defecation.—*Journal de Médecine de Bordeaux.*

THE USE OF ORTHOFORM.

IN NOSE and throat work, says the *Year-Book of the Nose, Throat and Ear*, the reports of the use of this drug have been almost universally favorable. Brocq, however, has found orthoform sometimes irritating, and capable of exciting hyperemia and pruritus. In one case, a one-to-forty ointment caused swelling and redness lasting three weeks. Asam reports nine cases in which it produced inflammation, and Miodowsky observed a case of moist gangrene following the application of a 5 per cent. ointment.

IODIDES IN LOCOMOTOR ATAXIA.

ROUX, according to the *Journal of Nervous and Mental Diseases*, in a recent work on the sensory visceral derangements in tabes shows that iodides may irritate the stomach, alter the mucosa, and cause gastritis, with serious consequences. The pain is felt in the lower thorax, especially the left side, and may be severe; it is felt an hour or two after eating, increases gradually, and then disappears before the next meal. Vomiting may ensue, and persistence in the iodide may finally produce typical gastric crises. These are distinguished from true crises by their gradual onset and disappearance, by their development after gastric irritation or at the menses, and by their suppression with a milk diet and discontinuance of the iodide.

IN PURULENT PLEURISY.

CAPITAN at once aspirates all the fluid possible; if it returns, he again removes it and injects a few drops of camphor and betanaphthol, equal parts, or some peroxide of hydrogen. If the pus then persists, an opening is made under cocaine, by knife or

thermocautery, and drainage established. He agrees with Desplats that the operation is simple and that removal of rib is unnecessary. As anesthetic and to avoid cardiac or respiratory difficulties a good injection is 1.0-2.0 c.c. (M xv.-xxx) of

R	Hydrochlorate of cocaine	.10	gr. iss.
	Hydrochlorate of morphine	.05	gr. $\frac{3}{4}$.
	Sulfate of sparteine	.20	gr. iii.
	Sulfate of atropine	.02	gr. $\frac{1}{3}$.
	Distilled water to make	10.00	℥iiss.

This is supplemented by ethyl chlorid spray.

At the first sign of trouble inject

R	Sulfate of sparteine	.05	gr. $\frac{3}{4}$.
	Caffeine	.20	gr. iii.
	Benzoate of soda	.20	gr. iii.
	Distilled water	1.00	M xv.

Repeat if necessary. He lays stress on not operating till the deposits of fibrin have become loosened from the pleura. Normally a certain dulness and indistinct breathing persist after aspiration, and when this disappears above the level of the reaccumulating fluid, it indicates detachment of the fibrin. The results of operation are satisfactory in empyemas due to pneumococcus, streptococcus, or staphylococcus, but not in those of tubercular origin.—*La Med. Mod.*

SCABIES IN CHILDREN.

TO AVOID the irritating action of the ordinary remedies for itch in children, Léon Perrin rubs the whole body at night with

R	Camphor oil of chamom.	100.0	℥ijss.
	Ointment of liq. styr.	20.0	℥v.
	Balsam of Peru	5.0	gr. lxxv.

The next morning wash with soap and hot water, and powder the skin with starch. If the skin is a little inflamed apply zinc-oxide ointment. The first night the itching ceases, and in eight or ten days the cure is complete. To avoid recurrence all the clothes and bedding must be washed with disinfectants.—*Journal de Médecine de Bordeaux.*

ON THE TREATMENT OF ASTHMA.

NOTHING is so likely to induce an attack, say Fowler and Godlee (*Diseases of the Lungs*), as retiring before digestion is finished, therefore the principal meal should be taken at midday. Alcoholic drinks and coffee can rarely be taken safely. To ward off

attacks, iodide of potassium, gram 0.3 (gr. v.), three times a day, increased rapidly to 4.0 (3i) a day, has been of most service, and to this may be added the ethereal tincture of lobelia, 1.3 (m xx.), or extract of stramonium .015 (gr. $\frac{1}{4}$). Arsenic is worthy of trial, but is of less value. Some patients never retire without burning niter paper, made by saturating blotting-paper with a 1-in-16 solution of potassium nitrate, or smoking a cigarette containing stramonium or some such remedy. As regards locality, every asthmatic is a law to himself; most find that in the smoky atmosphere of a large town they are more free from attacks than elsewhere. If chronic bronchitis is the cause, a warm, dry climate, avoidance of exposure to cold and damp, and cod-liver oil are indicated. When the nervous factor predominates, with slight catarrh or emphysema, a high altitude is usually preferred. Inhalation under pressure of a hot, dense vapor, as at Mont Doré, is often of benefit. When a gouty factor is present, colchicum and alkalies are indicated, and mercury and saline purgatives in constipation and functional derangements of the liver. In some persons these latter are certain precursors of an attack. Morbid conditions of the nasopharynx require local or climatic treatment.

A TALE OF TWO CITIES.

IN CONNECTION with our comments upon filters, it is only just to remark that again the profession is indebted to the Buffalo Health Department for definite information upon an important point. It has frequently happened before. Inquiry, however, among the oldest Cleveland physicians fails to resurrect a memory of an instance in which the health department of this city has made a contribution to scientific knowledge. This perhaps has not been due so much to the neglect or inefficiency of the incumbent health officer, as to the niggardly policy of the city council in all matters pertaining to the department of health. Health officers have asked for bacteriologists and laboratories, but the city fathers only smiled at the eccentricities of the doctors, while they busied themselves negotiating favors with those from whom the city must purchase merchandise and property. Cleveland may lead Buffalo in population; in sanitary matters it is very far in the rear. It must be added that this is due in part to the fact that for some time Dr. Wende has been the executive head of the Buffalo Health Department, and has proved himself to be the most progressive and fearless health officer in any of our

cities. Will the time ever come when Cleveland will have a properly equipped health department?—*Cleveland Jour. of Med.*, October, 1900.

LOCOMOTOR ATAXIA.

DR. S. LEDUC, professor of medicine in the School of Medicine, at Nantes (*Gazette Médicale de Nantes*), basing his practice on the theory that the syphilitic origin of locomotor ataxia is scarcely contested today, for a past history of syphilis is found in nearly all ataxics, has injected daily into the muscles of the patient's thigh two grammes—about thirty minims—of the following solution:

R Corrosive sublimate.
Recrystallized sod. chlor. āā gr. iii.
Aq. dest., m. 300.

M. It is said that amelioration was at once manifest. Treatment was continued for periods of three weeks, followed by remissions of fifteen days. Six years from the commencement of the treatment the patient has lost the knee-jerk, and, although some lightning pains persist, he walks well, even at night, and leads a very active life.—*N. Y. Med. Jour.*

THE "NORMAL SALT SOLUTION."

THERE is some variation in the formulæ given by the different writers. Dr. Charles A. L. Reed, in his new Text-book of Gynecology, remarks that Locke has suggested the following formula and reported favorably upon it:

R Calcium chloride $3\frac{3}{4}$ grains.
Potassium chloride $1\frac{1}{2}$ "
Sodium chloride $2\frac{1}{2}$ drachms.
Sterilized, distilled, or tap water, enough to make . 1 quart.

M. The solution may be injected subcutaneously into the intestine, or into a vein.—*N. Y. Med. Jour.*

ANESTHETICS IN CARDIAC DISEASES.

HARE (*American Journal of the Medical Sciences*, August, 1901,) states that very few people, even with grave cardiac and vascular disease, die as the direct effect of an anesthetic. If statistics were looked into it would be found that a larger number of people die at stool or on going upstairs when suffering from disease of the heart than from anesthesia. He thinks that the majority of anesthesia accidents are the results of the shock of the operation and not of the anesthetic.

CORRESPONDENCE.

Collective Investigation of the Influence of the Silver Nitrate Injections on Phthisis.

PHILADELPHIA, Pa., August 15, 1901.

To the Editor Buffalo Medical Journal :

In 1892 the undersigned began a collective investigation of the action of cold in the treatment of acute pneumonia, and there is reason for believing that this procedure which resulted in gathering 400 cases of this disease thus treated, with a death-rate not quite 5 per cent., was an important factor in calling attention to the utility of that treatment, and in introducing it to the profession of this country. That research was based on the conviction that no remedy can be called truly successful until it has passed the exacting crucible of clinical experience, and it is now proposed to apply the same ordeal to the silver injection treatment of phthisis, which, in a large hospital, dispensary and private practice, reaching over a period of three years, and during which many thousand injections were administered, has given me greater satisfaction than any other method that I have ever employed. In keeping with the above expressed feeling, a cordial invitation is herewith extended to those members of the profession who have the inclination and opportunity to investigate this method of treating phthisis and to whom a reprint on the subject with full information and blanks to report cases, will be cheerfully sent on application.

THOMAS J. MAYS, M. D.

1829 SPRUCE STREET.

The Fire at the College of Physicians and Surgeons, Chicago.

To the Editor Buffalo Medical Journal :

Undoubtedly you have noticed through press reports the damage our old college building suffered through fire the 25th of June. A great many incorrect reports are in circulation regarding the continuance of our work, facilities, and the like. Kindly inform your readers that the administration of the college has suffered no serious disturbance in consequence of the fire and that we are now better housed and equipped than ever before and running quite as smoothly.

FRANK B. EARLE, Secretary.

CHICAGO, Ill., August 2, 1901.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

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VOL. XLI.—LVII. SEPTEMBER, 1901.

No. 2.

The Exposition in its Medical Aspects.

THE Pan-American Exposition has been in operation for four months and now has become familiar to a vast number of people, either by personal visitation or through oral and written accounts of what has been seen and described by visitors.

That the verdict of this vast throng of witnesses is one of approval may be observed in the steadily increasing attendance, the totals, per diem, jumping from thousands numbered in the forties during the first week in August, to those bordering on the eighties in the last week of the scorpion month. This is a gratifying condition, but it should be increased to the hundred thousand a day mark for the next two months, and we have no doubt these figures will be reached.

To the medical man there is much of special interest to be observed and studied at the fair, in addition to the vast exhibition of art work, machinery, agricultural material, colonial specialties and products, government displays and so on, to a never-ending accumulation of everything that can be raised or made by the hand of man. In the August issue of the JOURNAL we published a lengthy review of the medical and surgical side of the Exposition, written by the special correspondent of the *Boston Medical and Surgical Journal*, who presented the subject in an attractive and readable form, displaying the trained observer in every paragraph.

We now present to our readers a similar review of the same field, written by the special correspondent of the *New York Medical Record*, who is an equally keen observer as well as writer.

There may be discovered some little repetition in these two accounts, but each presents his own ideas from separate viewpoints and, taken together, they will afford to physicians the best possible penpictures of the medical features of the exposition. We feel sure they will be read with interest, and we cannot urge the exposition too strongly upon the attention of all physicians who desire to be entertained, instructed, and amused during a pleasant vacation.

The *Medical Record's* article is taken from its issue of August 17, 1901, and is as follows:

NOTES ON SOME OF THE MEDICAL FEATURES OF THE PAN-AMERICAN EXPOSITION.

There is much in the Exposition at Buffalo to attract and hold the attention of scientific and medical men. A person desirous of viewing thoroughly and of studying with some care the numerous exhibits exemplifying progress in medicine and science, will not only need to have a considerable amount of time at his disposal, but will also find his task greatly facilitated if he has a knowledge of the location of the features of interest.

Upon entering the West Amherst Gate the first building that strikes the view is the Emergency Hospital, the general plan and functions of which were described at length in the *Medical Record* some three months' ago. It may nevertheless be mentioned that its province is wholly restricted to medical work, that serious cases are transferred to institutions outside the grounds, and that no patient is permitted to remain overnight. The building contains twenty-six beds, and is excellently equipped in accordance with the latest methods of sanitary science. The medical director of the exposition, Dr. Roswell Park, looks after its administration and with Dr. Vertner Kenerson, the physician directly in charge, visits the institution daily. The house staff is composed of six young medical men who take duty in turn, two at the same time. The nursing staff comprises four nurses. There is also in the service of the hospital an automobile ambulance in charge of medical students of the University of Buffalo.

The hospital during the three months of the Exposition's existence has treated upwards of 3,000 cases, the majority of which have been medical. It is satisfactory to note that there have been but a few cases of a grave nature and that the occurrence of sunstroke and heat exhaustion has been remarkably rare. This fact when taking into consideration the prevalence of excessive heat all over the country at the end of June and at the beginning of July is decidedly noteworthy, and says volumes for the salubrity of Buffalo.

By far the larger number of those who have made use of the hospital up to the present time have been women, while among the employees and temporary residents of the Exposition the

foreign element has supplied the bulk of the patients. The complaints have been characterised for the most part by their simple nature, and there has been no suspicion of anything resembling an epidemic. Probably the diarrhoea and stomach disturbances to which the foreigners have shown themselves especially prone may be attributed to an unaccustomed mode of living, and perhaps to injudicious eating and drinking. On the whole, however, the health of the Exposition inhabitants has been highly satisfactory, as has been also the health of the visitors to the great fair.

Those who are responsible for the management and supervision of the Emergency Hospital must be commended for the admirable manner in which their duties have been carried out, and they can lay the flattering function to their hearts that their work has been well appreciated by the general public.

The incubation of infants seems, to use an every-day colloquial expression, to have "caught on" in more than one sense of the word. This method, of course, is largely resorted to for the rearing of weakly infants, and it also would appear to be equally popular from an exhibition standpoint.

In London some few years ago, an exhibition of infants in incubators was an adjunct to Barnum's show, and at that time the *Lancet* passed severe strictures upon the procedure, declaring the scheme was deserving of grave censure, and that it was neither fitting nor right that hapless babes should be placed on exhibition for the sake of gain. While one may agree with the remarks of our contemporary so far as this side of the question is concerned, it nevertheless cannot be denied that incubators have been the means of saving the life of many a prematurely born infant—whether for its weal or woe is altogether another matter. As, however, it seems that incubators have come to stay, the object should certainly be to provide the very best of the kind. The invention of and improvements made in the *couveuse* have been dealt with fully at different times in the *Medical Record*.

The incubators, twelve in number, are placed around a well-lighted room of which the walls and floors are impermeable. The incubators are glass-covered, and the infant reposes upon a mattress of woven wire, padded with soft material. A card is placed above each incubator, stating the date of the occupant's birth, its weight, and other details. A uniform temperature is assured in the incubators by means of a thermostat. The heat is derived from a metal boiler, which can be heated by a Bunsen burner or by an ordinary lamp. Ventilation is provided by the introduction of fresh air into the incubator from outside, the air being sterilised by filtration through an antiseptic fluid and then through cotton. The infants are taken out of the incubator every two hours and removed to a small room fitted as a nursery, there being fed by wet nurses and inspected as to their condition of cleanliness.

Nearly all the infants on exhibition are stated to be seven months' children. Whatever may be thought of the incubation

method of preserving life, it must be confessed that the exhibition at Buffalo is excellently conducted, and is one of the most popular of the entire exposition. Indeed it is quite amusing to watch the crowds that frequent the baby show, which but goes to prove that after all a spectacle of human interest is most attractive to all classes.

On one side of the Emergency Hospital a "creche" has been established, the lack of such a necessary haven of rest for weary little ones having been greatly felt. Its institution was largely due to the eloquent plea on behalf of tired mothers and children set forth recently in the *Boston Medical and Surgical Journal*. The creche will be undoubtedly welcomed with lively feelings of gratitude, and will not only be highly appreciated by mothers of small families, but will be the means of bringing to the exposition many parents with their quivers full who would otherwise be compelled to forgo a visit.

A few words may be said in regard to the sanitation of the Exposition as a whole. The buildings are almost without exception well constructed, and due attention has been paid to their ventilation and hygienic qualities generally. There is, however, one conspicuous and even glaring exception to this satisfactory state of affairs, and this too in a building which contains one of the most attractive and popular displays on the grounds, and which is largely frequented by visitors to the exposition. The ventilation and sanitary arrangements of the art galleries, are, to put the case mildly, extremely defective. When the weather is warm, the atmosphere of the interior of the structure devoted to the fine arts is oppressive to a degree, and judging from the odor which commonly prevails, there must be something very wrong with the plan upon which the sanitation has been conceived. Even an enthusiast in art, and one who is carried away by his love for the beautiful, is nevertheless rarely so unconscious of sublunary matters as to be unwitting of heat and altogether careless of an offense to his olfactory organs; while to the ordinary individual the discomforts of the art building are apt to outweigh the pressure of gazing upon the really fine specimens of the artist's and sculptor's craft contained therein.

Perhaps the most instructive and interesting display in the entire Exposition—at any rate to the medical man—is that made by the medical department of the army. This exhibit, which is under the direction of Captain Edward L. Munson, of the United States Army Medical Department, is the largest and most complete of any in the exposition, and represents a model brigade field hospital, exemplifying its equipment and working down to the smallest detail. The only drawback to the unqualified success of this practical presentation of army medical methods is that the space allotted is decidedly limited in extent. So that, although the brigade field hospital is in itself illustrative of its object, the drill of the hospital Corps has to be considerably curtailed owing to inadequacy of area.

The tents constituting the brigade field hospital are pitched in close proximity to the main Government Buildings, and are arranged in form of a cross, the medical and surgical tents, mess kitchen, and office tents being placed within the arms of the cross, a position shown by experience to be the most convenient as well as calling for the least amount of time and energy. One hundred beds are provided in the hospital for a brigade numbering 5,375 war strength; a proportion of 2 per cent. sick can thus be cared for.

The tents used are those invented by Captain Munson, and it is claimed for them that their ventilation is effective, and that the temperature of the interior is, in tropical climates, materially lowered. The test to which these tents have been put in Cuba and the Philippines is stated to have justified the encomiums passed upon them. The exhibit at Buffalo is the first that has been publicly given of the improved methods now in vogue in the U. S. Army Medical Department. The revised system is the outcome of the careful and prolonged deliberations of a board of medical officers, who made a painstaking study of army medical arrangements of the principal countries of the world, by personal observation or by correspondence. Any features worthy of adoption were embodied into the American system, the weak spots were eliminated or improved upon, and the assertion is now confidently made that no nation of the world can equal or even approach the Army Medical Department of this country as regards its organisation and more especially its equipment. Economy of space and reduction of weight of material has been the watchword, and this result has been reached not only without detriment to the health and comfort of the soldier, but rather to his advantage. The lesson learned in the war with Spain has been fully utilised, and drugs in sufficient varieties and quantities to last a field brigade at war strength, under active service conditions for 90 days, are carried with the dispensary tents of the hospital. Space is lacking to describe at length the many ingenious devices resorted to, for the purpose of packing within a small compass, and thereby rendering transportation easier. It will suffice to point to the new model medical chest as a striking example. This chest, while weighing but eighty pounds, or thereabouts, contains drugs and medical supplies enough to last in the ordinary way 1,600 men for 90 days. Three field chests—medical and surgical and steriliser—form a regimental set, one of which can be carried by one man, two by two men on a litter, and three constitute a mule load. The same judgment has been displayed to render transportation as easy as possible in the mode of packing the hospital furniture. Each table in a tent can be quickly transformed into an operating table, and, with the chairs, can be taken to pieces and placed in a small chest. The bedding and other impediments of a hospital tent are contained in a canvas bag. In fact, a tyro even in army medical matters cannot fail to be impressed with the ingeniously

simple devices, thought out and put into practice for the behoof of the soldier, and to enable a field officer to keep in touch with troops on the march, and thus permit the Army Medical Department to perform its duties efficiently. The army hospital corps give twice in the day, on a plot of ground adjoining the brigade field hospital, a smartly-executed exhibition of an emergency drill. The army medical exhibit is quite one of the most popular features of the exhibition, and is daily thronged by a crowd of the interested and curious.

In the main Government Building the U. S. Marine Hospital Service has a comparatively small but sufficiently complete exhibit, illustrating in an effective manner the methods and material of the service.

The exhibits are under the charge of Mr. Samuel W. Richardson, hospital steward, whose duties for many years have been rather of an executive nature than those appertaining to the rank of steward.

Models are shown of quarantine stations and detention camps; models of a section of a ward and of a marine-hospital operating room; a Kinyoun-Francis vacuum chamber as used at quarantine stations for disinfection of clothing; a complete *x-ray* outfit; a traveling laboratory. This latter is an eminently useful and, indeed, under certain circumstances, an essential part of the service's equipment. It may be easily understood that at times specimens for bacteriological investigation or for chemical analysis must be examined at once, as many would spoil during transportation to the hygienic laboratory at Washington. Therefore, a traveling laboratory, furnished for making immediate bacteriological examinations and chemical analyses, such as used by the Marine Hospital Service, may be said to be a necessary adjunct to its outfit.

Another feature of this exhibit which is deserving of special mention is the system of clinical reports devised by Surgeon-General Wyman. Clinical record sheets are issued for the use of the ward physician, upon which he writes in the usual way a history of the case, treatment, diet, etc. The point, however, to which it is wished to draw particular attention is that upon the discharge or death of the patient, these sheets, together with the temperature chart, are bound in a paper cover, upon the outside of which are inscribed the name, malady, and age of the patient with other facts bearing on the case. The reports, thus bound, are then arranged in cabinets, under the head of the disease from which the patient suffered, and, further, in another part of the cabinets, the case is tabulated under the name of the patient. The merits of this system are obvious, as prompt reference can be had to the history of any case. It would be superfluous here to touch upon the excellent work done in the past by the Marine Hospital Service. The exhibits at the Buffalo Exposition are, however, a remarkably convincing evidence that it is the object of the service to retain and add to a well-earned reputation, and

with this end in view, to spare neither brains nor time in improving the organisation and equipment and in taking any steps which would seem to tend to the perfecting of the establishment.

American Public Health Association.

THE American Public Health Association will hold its 29th annual meeting at Buffalo, September 16-21, 1901, as announced elsewhere. It will be remembered that this great medical organisation, which represents the United States, Canada, and Mexico, held a meeting here five years ago, under the presidency of Eduardo Liceaga of Mexico. The memory of that splendid meeting is still fresh and, great as it was, the forthcoming meeting should be still greater not only in numbers, but also in work accomplished.

It is one of the most important medical bodies in existence and is also one of the largest in its representation. Every health board in the three countries mentioned sends delegates to its meetings and all health officers, public health officials, sanitarians, sanitary engineers, and many publicists are members. It carries on its rolls some of the most distinguished names known in medicine—indeed, in science—in the world, and its prospective Buffalo meeting should be made the greatest medical congress ever held in the City of the Exposition.

The men and women who will attend it are engaged in studying the greatest problem that concerns humanity today—namely, the prevention of disease. This is the chief concern of the educated physician of this period, and to its solution many great men are devoting their lives and their purses. Every business man is or ought to be interested in this subject, and every man and woman of intelligence in Buffalo ought to feel an interest in the success of the September meeting here.

Pecuniary support is needed to carry such a meeting forward to a successful conclusion. A large number of visitors will come to the Pan-American City in consequence of this gathering. They should be entertained in a manner commensurate with the importance of their errand, and in keeping with the distinguished character of the visitors. High public officials, noted citizens, great officers of the Army and Navy and Marine Hospital Service, and distinguished foreign representatives will be here, and they should be welcomed with that hospitality for which the Queen City of the Lakes is so justly celebrated.

Contributions of money should be liberal from our citizens in general, and such may be sent to Dr. Henry Reed Hopkins, chairman of the committee of arrangements, to Dr. D. W. Harrington, chairman of the committee on finance, or to Dr. Ernest Wende, chairman of committee on membership. An acknowledgement will be promptly made and the amounts properly credited.

DR. NELSON W. WILSON, sanitary officer of the exposition is kept busy in looking after the health of the Rainbow City. When one considers that the exposition is really a vast camp being occupied for six months, inhabited by thousands of people who permanently reside within its lines, and which is visited by millions of others who are coming and going constantly and who must be fed and cared for in various ways, some conception may be formed of the duties of the sanitary officer. He must be on the alert to detect any infraction of the rules and he must enforce his orders with an imperial hand. That no serious sickness has disturbed the inhabitants of the Midway, which numbers amongst its population people of all climes and of every race and nation on the face of the globe, many of whom have been indifferently trained and some being entirely ignorant of sanitary laws, it seems almost marvelous that no epidemic or infectious disease has appeared.

Sometimes it has been necessary to enforce orders with apparent severity, but every concessionaire and exhibitor will recognise that he has no better friend than a sanitary officer who performs his duties in a fearless manner.

To show how alert one must be, several days ago the sanitary officer seized several phosphate bottles with metal tops, and destroyed them. They were being used by two independent drink-stand concessionaires. Only glass and porcelain tops are allowed on phosphate bottles, because the gases of the phosphate corrode the metal and breed disease. Dr. Wilson inspects daily all drink-dispensing and food-selling booths, and it is asserted that there is not one thing to eat or drink sold on the grounds that is in any way unclean, if rigid inspection can prevent it.

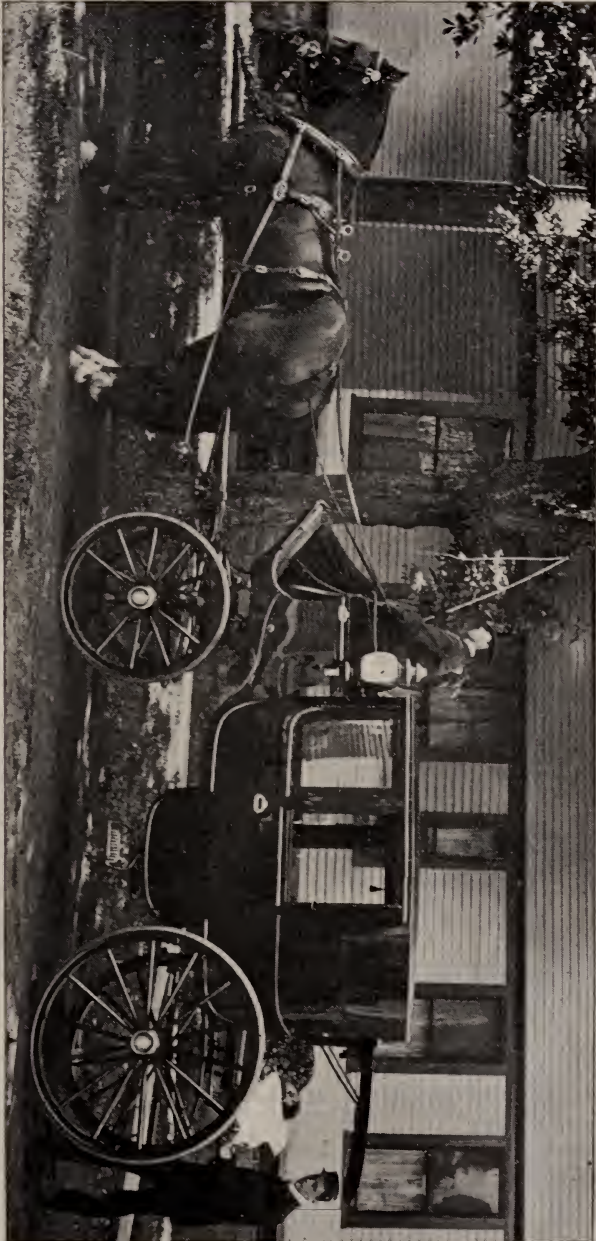
THE *Medical Mirror*, in its issue for July, 1901, does the JOURNAL great honor in republishing several columns of its editorial work. We appreciate the compliment because there is no

better judge of the value of medical journal articles, editorial and otherwise, than the veteran and scholarly editor of the *Mirror*.

Dr. Love thinks it would have been better if the reorganisation scheme of the American Medical Association had been laid over for a year, rather than that action were taken at the late meeting. Dr. Love makes the mistake—we trust we may be pardoned for terming it such—of speaking as though it were an amendment that was acted upon instead of a plan of reorganization. The two conditions are entirely different. The house, at Atlantic City, instructed a committee to report a scheme of reorganisation. After a year's work the committee so reported at St. Paul. It reported to an entirely different house than that which created it. The personnel of the house changes every year. This has been a great drawback to intelligent action—an evil which is now corrected. The action at St. Paul was taken with deliberation and every section of the plan received seriatim consideration and action. Had action been delayed for a year the committee would have reported to an entirely new house with new officers, who would have known less of the affairs under consideration than those in authority this year. It seems to us that the only logical action the house could take was to approve or reject the scheme of the committee. It did the latter with some amendments, and 'tis well.

AN INVALID COACH SERVICE.—Mr. Frank J. Conover, of 182-186 Herkimer Street, Buffalo, offers the public a service which will be highly appreciated in those cases of accident or sudden sickness, where transportation is desired without the publicity of the common ambulance. This he offers through R. R. Bennett's "invalid coach," view of which is shown on the opposite page.

This coach was built for the purpose of conveying incapacitated persons free from the annoyance incident to transit in an ambulance. It is of the Berlin style, provided with an air mattress and pillow, the bed being fully six feet in length. On the inside it will accommodate two persons with the patient. The wheels are supplied with rubber tire and the removal is accomplished noiselessly and without the jar of an ordinary vehicle. After the patient is in the carriage, and the back closed, there is nothing to indicate its character—to all eyes it is simply one of the many fine carriages that pass through the streets. When a patient is to be brought into town, if the distance is too far to send the



FRANK J. CONOVER'S INVALID COACH SERVICE: READY TO RECEIVE PATIENT.

[Copyright Buffalo Illustrated Express.]

carriage, one or two experienced men are sent with the bed, which is so arranged that a litter may be formed of it, the patient remaining on it aboard the train and is transferred thence to the carriage without change. A special rate is made for coaches going out of town. In cases where it is desired to move a patient from one room to another in the house, it can be done without distress to the individual, by having the removal made by two careful men. This coach will not be used for contagious diseases. For rates and all particulars, application should be made to Mr. Conover, at the above address. His telephone number is Bryant 453.

PERSONAL.

DR. EUGENE SMITH, of Detroit, accompanied by Mrs. Smith, has been spending a few weeks at his country home on the Lakeshore, near Athol Springs. Dr. Smith and wife have also been occasional and interested visitors at the exposition grounds.

DR. LEWIS S. MCMURTRY and family, of Louisville, were visitors to Buffalo and the exposition for ten days in early August. They were charmed with the Fair.

DR. AND MRS. WILLIAM S. FOSTER, of Pittsburg, Pa., passed a few days in mid-August at the Kenilworth and were very greatly pleased with the exposition as well as with the attractiveness of Buffalo as a city.

DR. CHARLES A. L. REED and family, of Cincinnati, paid a ten-day visit to Buffalo in the early part of August and were greatly pleased with the exposition.

DR. ALTON L. SMILEY, of Buffalo, U. of B., 1900, has been appointed junior physician at the Manhattan State Hospital, at a salary of \$900.

DR. N. R. COLEMAN and wife of Columbus, O., spent a few days at the exposition during the latter days of August and spoke in glowing terms of its beauties, attractions and educational points of interest.

DR. AND MRS. GEORGE HENRY FOX, of New York, were among the late August visitors to Buffalo and the exposition. Dr. Fox accorded unstinted praise to the plan, scope and detail of the exposition.

MR. WILLIAM WHITFORD, of Chicago, the most accomplished medical stenographer in the country, paid a short visit to Buffalo and the exposition in the latter days of August. He expressed great interest and pleasure in what he saw.

OBITUARY NOTES.

DR. EDWARD P. HAY, U. of B., 1899, died at the German Hospital in Buffalo, August 10, 1901.

DR. EDWIN E. WHITCOMB, of Rochester, N. Y., U. of B., '75, died at his home August 1, 1901, aged 50 years.

DR. ROBERT BARNWELL RHETT, JR., of Charleston, S. C., died at his home, August 7, 1901, aged 47 years. Dr. Rhett was a famous physician, belonged to one of the most distinguished families in South Carolina, and was a fellow of the American Association of Obstetricians and Gynecologists.

DR. FRANK P. BINGHAM, of Buffalo, was crossing car tracks at Main and Summer streets on his bicycle on August 2, 1901, when he was struck by a street car and so severely injured that he died in a few minutes. He was a son of Charles W. Bingham, of No. 525 Niagara Street. He was born in Pennsylvania and received his education in the University of Vermont and the University of Buffalo, graduating from the latter in 1899. He was a nephew of George C. Bingham, vice-president and treasurer of the American Agricultural & Chemical Company. He had lived in Buffalo for nine years and two years he was physician at the Children's Hospital at Athol Springs. He was held in high esteem by all who knew him, especially in the profession which he had chosen, and in which he bid fair to become highly successful. His age was 28 years.

DR. JAMES V. KENDALL, of Baldwinsville, N. Y., a graduate of Geneva Medical College, 1844, died August 5, 1901, aged 83 years.

DR. CHARLES W. HAYT, of Corning, N. Y., was lost from a steamboat of the Cleveland and Buffalo line, during the night of

July 23-24, 1901, and has not been heard from. He graduated at the College of Physicians and Surgeons, New York, in 1899, and was a young man of great professional promise.

DR. JESSIE SHEPARD, the most prominent homeopathic woman physician in Buffalo, died Saturday, August 24, 1901, at the Homeopathic Hospital, after an operation for appendicitis. Dr. Shepard was taken ill Monday, August 19, and died two days after the operation was made. Dr. Shepard was a daughter of the late John D. Shepard, and a sister to Charles G. and Walter J. Shepard. She was born in Buffalo and obtained her early education in the public schools here. She attended the Homeopathic Hospital College in Cleveland and was graduated from the Boston University medical department.

Dr. Shepard was for one year resident surgeon in the Massachusetts Homeopathic Hospital. Afterward she practised in association with Dr. Joseph T. Cook, of Buffalo. A few years ago she visited Vienna, Austria, and spent nearly a year in the General Hospital there. She returned to Buffalo and resumed practice, so continuing until her last illness.

SOCIETY MEETINGS.

THE Medical Society of the County of Cattaraugus and the Thomas J. King Medical Club held a joint meeting at Hazelmere Inn, Lime Lake, N. Y., Tuesday, August 6, 1901, under the presidency of Dr. James A. Taggart, of Salamanca, N. Y. Dr. William C. Krauss, of Buffalo, read a paper entitled, Toxic dosage in the treatment of some nervous diseases; Dr. Wm. B. Johnston, of Ellicottville, one entitled, Acute poliomyelitis, and Dr. Wm. A. MacFarlane, of Springville, also contributed a paper.

THE Mississippi Valley Medical Association will hold its next annual meeting under the presidency of Dr. A. H. Cordier, of Kansas City, at the Hotel Victory, Put-in-Bay, Ohio, Thursday, Friday and Saturday, September 12, 13, and 14, 1901. The railroad rates for this meeting are a one-fare rate by way of Cleveland, which will enable those taking advantage of these rates to obtain an extension of tickets to October 8th for attendance upon the Buffalo exposition. A one-and-a-third fare rate on the certificate plan will be in effect via Detroit, Sandusky and

Toledo, with extension of return limit for only three days after the meeting. The address in Medicine will be made by Dr. Frank Billings, of Chicago; the address in Surgery by Dr. Reginald Sayre, of New York City. The annual banquet will be held on the evening of the first day, September 12th; the second evening will be assigned to the reading of several papers with stereopticon exhibits and demonstrations; the president's address and the annual orations will be delivered on the three mornings of the meeting. The profession is cordially invited to attend.

THE Southern Surgical and Gynecological Association will hold its next annual meeting at Richmond, Va., Tuesday, Wednesday and Thursday, November 12, 13 and 14, 1901, under the presidency of Dr. Manning Simmons, of Charleston, S. C. The secretary, Dr. W. E. Haggard, Jr., of Nashville, Tenn., has issued a preliminary circular inviting contributions of papers. The city chosen for the coming meeting is both interesting and hospitable and a most successful group of sessions may be anticipated. Dr. George Ben Johnston, of Richmond, is chairman of the committee of arrangements, which means that everything possible will be done for the convenience and comfort of the visitors.

THE Medical Association of Central New York is holding a well attended and interesting meeting under the presidency of Dr. Lucien Howe, of Buffalo, while these pages are going through the press.

THE Association of American Medical Editors, at its annual meeting, at St. Paul, June 5, 1901, elected officers for the ensuing year as follows: President, Alex. J. Stone, of St. Paul; vice-president, Burnside Foster, of St. Paul; secretary and treasurer, O. F. Ball, of St. Louis. The executive committee appointed for the ensuing year consisted of Drs. Gould, Mathews, Lillie, Fassett, and Marcy. The next meeting will be held at Saratoga Springs, N.Y., in June, 1902.

THE American Public Health Association representing the United States of America, the Dominion of Canada, the Republic of Mexico, will hold its 29th annual meeting at Buffalo, N. Y., Monday, Tuesday, Wednesday, Thursday and Friday, September 16, 17, 18, 19 and 20, 1901.

The chairmen of local committees are as follows: Arrangements, Henry Reed Hopkins; finance, D. W. Harrington; membership, Ernest Wende; reception and entertainment, Charles Cary; printing and publishing, William Warren Potter; bacteriology and exhibits, William G. Bissell; halls, Walter D. Greene; information, Dewitt H. Sherman.

The executive committee has selected the following topics for consideration, but papers will be received upon other sanitary subjects. General meeting—I. The pollution of public water supplies; II. The disposal of refuse material; III. Animal diseases and animal food; IV. Car sanitation; V. Etiology of yellow fever; VI. Steamship and steamboat sanitation; VII. Relation of forestry to the public health; VIII. Demography and statistics in their sanitary relation; IX. Cause, prevention and duration of infectious diseases; X. Public health legislation; XI. Cause and prevention of infant mortality; XII. Disinfectants and disinfection; XIII. National leper homes; XIV. Dangers to the public health from illuminating and fuel gas; XV. Transportation of diseased tissue by mail; XVI. The teaching of hygiene and granting of diploma of doctor of public health; XVII. School hygiene; XVIII. Sanitary aid societies.

Section on bacteriology and chemistry—I. On standard methods of water analysis; II. Bacteriology of milk in its sanitary relations; III. Variations of the colon bacillus in relation to public health; IV. Exhibition of laboratory apparatus and appliances for teaching hygiene.

A daily program will be issued each morning giving the titles of papers, reports, and the like, that will be presented, with such other information as may be of interest in connection with the work of the day.

The headquarters of the executive committee will be at the Niagara Hotel. A meeting of the committee will be held in one of the parlors on Monday, September 16, at 10 a.m. Subsequent meetings of the committee will be held daily at such hours as hereafter may be determined.

The advisory council will meet Thursday, September 19, the hour and place to be announced by the president, for the purpose of acting as a nominating committee of officers for the ensuing year, to select the place of the next annual meeting, and to consider such questions and make such recommendations as shall best secure the objects of the association.

On account of the Pan-American Exposition all railroads have granted rates to Buffalo of one fare, plus one dollar, for the round trip. It is possible that still lower rates will be offered before the time of the meeting.

The Niagara Hotel will be the headquarters of the association. This hotel is on Porter Avenue, between Seventh Street and Front Avenue. It contains 210 rooms. Rates are \$2.00 a day and upwards—European plan—for one person.

The place of meeting will be at the Armory of the 74th Regiment, one block from the Niagara Hotel. The general association will open its meetings in the Armory on Tuesday morning, September 17, at 10 o'clock. An opening address will then be given by Dr. Stephen Smith, of New York, first president of the Association. The public meeting will occur Tuesday evening, September 17, at 8 o'clock. Addresses of welcome will be given, after which the annual address of the president of the association, Dr. Benjamin Lee, will be read. The section on bacteriology and chemistry will hold its meetings at the Armory, beginning Monday, September 16.

The meetings of the association are open to the public. Many valuable papers have been secured which, with the reports from special committees, insures an interesting program, and all persons, of whatever profession or occupation, are cordially invited to be present.

Further information concerning local matters, if desired, may be obtained by addressing Dr. H. R. Hopkins, chairman local committee of arrangements, Buffalo, N.Y.

The officers for 1900-1901, are: president, Dr. Benjamin Lee, Philadelphia; first vice-president, Rudolph Hering, C. E., New York; second vice-president, Dr. John N. Hurty, Indianapolis; secretary, Charles O. Probst, Columbus; treasurer, Dr. Henry D. Holton, Brattleboro.

NOTE—At the last annual meeting of the Conference of State and Provincial Boards of Health of North America, it was voted to hold their next meeting in connection with the meeting of the American Public Health Association. Accordingly the conference has arranged to meet at the Cataract House, Niagara Falls, on Friday and Saturday, September 13 and 14, 1901.

THE American Association of Obstetricians and Gynecologists will hold its fourteenth annual meeting at the Hotél Hollenden, Cleveland, O., Tuesday, Wednesday and Thursday, September

17, 18 and 19, 1901, under the presidency of Dr. William E. B. Davis, of Birmingham, Ala. The committee of arrangements is composed of Dr. M. Rosenwasser, 722 Woodland Avenue and Dr. William H. Humiston, 122 Euclid Avenue, Cleveland, either of whom may be addressed concerning rooms or other local information regarding the meeting.

The following list of papers is offered:

1. The president's address, William E. B. Davis, Birmingham.
2. Indications for the combined vagino-abdominal operation of hysterectomy, Rufus B. Hall, Cincinnati.
3. Title to be announced, Henry D. Ingraham, Buffalo.
4. A method for suspension of the uterus, Robert T. Morris, New York.
5. Tubercular peritonitis, experimental and clinical, John B. Murphy, Chicago.
6. Report of a case of acute pancreatitis and fat necrosis, Edward J. Ill, Newark.
7. Pelvic and abdominal tumors complicating pregnancy, with report of cases, Rufus B. Hall, Cincinnati.
8. Pathology and treatment of hourglass stomach, with report of two cases, Charles G. Cumston, Boston.
9. Early operations in appendicitis and method, Joseph Price, Philadelphia.
10. Vaginal hysterectomy, with four and a half months' pregnancy and closed cervix, J. Henry Carstens, Detroit.
11. The undeveloped uterus, C. L. Bonifield, Cincinnati.
12. An interesting case of tubo-abdominal pregnancy, Wm. H. Humiston, Cleveland.
13. Title to be announced, Walter B. Dorsett, St. Louis.
14. Some rare and odd cases and experiences in pelvic and abdominal surgery; the lessons they teach, C. C. Frederick, Buffalo.
15. Report of a case of ruptured tubal pregnancy, Webb J. Kelly, Piqua, O.
16. Diseases and injuries of the cervix uteri and their treatment, Joel W. Hyde, Brooklyn.
17. Gallstones in the common duct; remarks upon their frequency, diagnosis and treatment, L. H. Dunning, Indianapolis.
18. Title to be announced, James F. W. Ross, Toronto.
19. Extrauterine pregnancy; report of cases with specimens, George S. Peck, Youngstown.

20. Is Cesarean section justifiable in placenta previa? E. Gustav Zinke, Cincinnati.

21. Retrodisplacements in young girls; their frequency and best methods of treatment, H. E. Hayd, Buffalo.

22. Some reflections on ectopic gestation, David Tod Gilliam, Columbus.

23. Some forms of disease involving the uterine appendages, Augustus P. Clarke, Cambridge.

24. The mechanical, or combined plastic and mechanical treatment of retrodeviations of the womb, M. Rosenwasser, Cleveland.

25. New method of opening the abdomen in gynecological surgery, Charles G. Cumston, Boston.

26. Indications, technic, and remote results of salpingostomy, and of resection and ignipuncture of the ovaries, with tables of 104 cases, A. Goldspohn, Chicago.

27. Sarcoma of the breast, with report of a case, Edwin Ricketts, Cincinnati.

28. Some observations on the surgery of the spleen, Lewis S. McMurtry, Louisville.

29. The rôle of nephrotomy and nephrectomy in suppurative and malignant diseases of the kidney, Charles A. L. Reed, Cincinnati.

30. Pregnancy in bicornate uterus; rupture in third month; operation; recovery; specimen, Miles F. Porter, Fort Wayne.

31. Galvanism as a remedy for uterine hemorrhages, Edwin Walker, Evansville.

32. Papilloma of the vulva, with specimens, Edward J. Ill, Newark.

33. The need of constitutional treatment in gynecological cases, Walter B. Chase, New York.

THE American Electro-therapeutic Association will hold its 11th annual meeting at Buffalo, September 24, 25 and 26, 1901.

The following-named are the officers and committees for 1901-1902: President, Ernest Wende, 471 Delaware Ave., Buffalo, N.Y.; first vice-president, Frederic H. Morse, Melrose, Mass.; second vice-president, D. R. Brower, Chicago, Ill.; secretary, George E. Bill, 255 North St., Harrisburg, Pa.; treasurer, R. J. Nunn, 119 York St., Savannah, Ga.

Executive council—Robert Newman, 148 W. 73d Street, New York City; G. Betton Massey, 1831 Chestnut St., Philadelphia,

Pa.; Charles R. Dickson, 296 Sherbourne St., Toronto, Canada; Frederic Schavoir, 8 Atlantic St., Stamford, Conn; F. B. Bishop, Washington, D.C.; W. H. White, Boston, Mass.

Committee on arrangements—Henry R. Hopkins, chairman, 433 Franklin St.; William Warren Potter, 284 Franklin St.; W. D. Greene, 385 Jersey St.; Newcomb Carlton, C. E., 109 White Building; Mr. Augustus Schneider, 574 West Ave.; A. W. Bayliss, 529 Spring St.; Edward Clark, 2268 Main St.; Willis G. Gregory, 530 Main St.; Franklin C. Gram, 46 Glenwood Ave.; Julius Ullman, 400 Franklin St., all Buffalo, N. Y.

PAN-AMERICAN NOTES.

MIDWAY SPECIALTIES.

FRANK C. BOSTOCK's great animal arena continues to interest the people and draw the crowd. This is easy of explanation



BONAVITA and his Famous Group of Twenty-Seven Shaggy Maned Denizens of the Jungle.

for, without doubt, it is the most comprehensive, elaborate and skilful presentation of animals, domestic and wild, that the world has ever seen. The jungles of India have yielded their most ferocious beasts and Bostock and his assistants have subjugated and molded them into a harmonious whole which, alto-

gether, proves the most instructive and fascinating study of animal life ever grouped under a single roof. When Captain Bonavita, with from fifteen to twenty-five Asiatic lions enters the arena, every voice is stilled and eager expectation is all agog for the coming event, which may mean death to the master or victory for the calm and fearless trainer, who displays such wonderful control of himself and compels such obedience from his lions. He may be justly entitled the "The Lion Monarch." Sometimes he spends ten or twelve minutes in posing "Denver," the most ferocious lion in his den, during which time the band ceases to play, every heart is beating in anxiety and every eye is fixed upon the wonderful scene; and when the Captain finally triumphs and mops the perspiration from his brow, with the entire audience bursting into generous applause, it marks one of the most inspiring scenes that the imagination can possibly picture.

Madame Morelli, the Queen of Jaguars, and her group of leopards, panthers and jaguars and Capt. Bonavita and his lions, are easily the thrilling individual acts within the gates. Mr. Bostock, the animal king, is constantly adding to his collection of animals and he has at the Pan-American one of the largest and best in the world.

THE beautiful Orient, with its Streets of Cairo, its corner in Algiers, its caravan of camels, its shops and theatres, always appeals to the interest of the visitor. A camel or donkey ride is one of the novelties that must be participated in to be appreciated. Mr. G. Akoun, the director-general of this concession, has made it a great success and has won the esteem of all who come in contact with him. Of course everyone will visit the streets of Cairo who attends the exposition and, it is needless to add, will be well repaid for so doing.

ALT NURNBERG is a delightful place in which to spend an evening. The restaurant furnishes an excellent service where dinner may be eaten in course under the influence of the exquisite music of the Royal Bavarian band, conducted by Herr Jacob Peuppus. The charm of the surroundings in that old Dutch city with its churches, battlements, shops and market places, is long to be remembered. Mr. Cox is to be congratulated upon the perfection of his management and one receives most courteous treatment at the hands of his entire staff.

THE Moorish Palace is a museum of art in wax that well repays a visit to its salons. It is at once refined and entertaining. It does not make as much external show as some of the places that have infinitely less to exhibit for the price of admission. It fully compensates one for an hour spent within its portals.

THE Indian Congress and Village, under the management of Mr. Frederick T. Cummins, is one of the most interesting and instructive places of amusement at the exposition. Wenona, the champion shot, is a comely Indian maiden, eighteen years old, the daughter of chief Crazy Snake of the Sioux. She is attractive in manner, her smile is winsome, and her English excellent. Her latest and most remarkable feats were wedging a bullet in a silver dollar at a distance of 1,463 feet, using a 44-caliber Winchester rifle and shooting from the American side to the Canadian side of Niagara Falls. On returning from Niagara Falls, Wenona was told that a target was to be placed to



WENONA.

the right of the road north of Echota. It was a black circular target with a white centerpiece, in the middle of which was a silver dollar. As the train whizzed by the target, Wenona spied it and fired. An examination of the target showed that the bullet was wedged in the coin, as in [the former case]. The entire performance in the arena, from the grand entry to the sham battle, with its group of Indian chiefs, in war paint and feathers, and the squaws and papooses with their tepees and the tribes in their war dances, holds the attention from beginning to end and elicits rounds of applause at frequent intervals. No one should fail to see this grand exhibition. The gentlemanly staff of the congress, from the president, Mr. Henry P. Burghard, to "Doc" Waddell, the general press representative, are all adapted to their various duties and form a group of earnest, hard-working men. The pow-wow between the Indians of Buffalo Bill's aggregation and those of the Midway show on Sunday, August 25, was an interesting and picturesque event.

THE Streets of Mexico is an interesting place to visit. The picturesque costumes of its people, the quaint architecture of its buildings, its graceful dancers, the excitement of the bull ring, and its excellent restaurant—all serve to make the visitor charmed, entertained and satisfied.

A TRIP to the moon should be taken by everybody; indeed, pretty much every exposition visitor does take it, judging by the crowds that have been waiting the arrival of the good ship "Luna" at her dock at "Thompsonville" whenever we have applied for passage. Mr. Frederick Thompson has devised one of the most innocent, entertaining and delightful illusions that well could be imagined and is deserving of the great success which is attending his enterprise.

FAIR JAPAN on the Midway is most assuredly "the beautiful village where people of culture and refinement delight to linger." With its attractive tea-houses, pretty little shops, its Japanese landscape and house architecture, streams of water and bridges, the refined music of its orchestra of women, its pretty theatre, with skilful acrobats and performers,—these and the charming attendants that everywhere give one a polite welcome, all conspire to make this an entertaining portion of the many delights of the Midway. Mr. Kushibiki, the manager, who lost his leg a few weeks ago in a trolley car accident, is recovering rapidly, as we are glad to learn. He is now riding about in a chair and walks a little on his crutches. We hope soon once more to see him at the head of his concession.

THE Filipinos and the Africans are two remarkable peoples. The dusky little fellows who have been giving the United States soldiers so much trouble across the far waters are very bright and entertaining. Delightful musicians, their band plays sweet music of the far away land and, now that they have learned to play the Star Spangled Banner, they look upon themselves as good Americans. It is their pride that they are citizens of a big country and those who are here now will carry back to the Islands more missionary talk and more pacification than the Tafft commission and all the gunmen of the army could instill into the Filipino mind in months of pronunciamiento and fighting.

THE one place which attracts not only women but men who are interested in babies is the incubator, where the tiny tots who

have come into the world before it was time for them to make their bows as human beings, are nursed and brought up to robust babyhood in glass cases. The place is always filled with a steady stream of visitors and the remarkably lucid explanation which is given of the workings of the incubators adds to the interest. The spic and span nurses, as they go about feeding and caring for the babies, makes a sight worth seeing and not easily forgotten.

MARY PRETTY BOY, an Indian child, 2 years old, died at the Indian Congress the middle of the month of intestinal toxemia. The child was seized with a convulsion while Dr. Wilson, the sanitary officer, was making an inspection of the camp and although he offered to take the child to the hospital, and when refused, offered to treat the patient there, he was told the parents preferred to have the Indian medicine man take the case. And then there followed the most remarkable exhibition of savage medicine; an exhibition which few white men are privileged to see, for the ceremonies of a medicine man are sacred. War Bonnet, the medicine chief, took a fancy to Dr. Wilson early in exposition days and permitted him to stay in the tepee during his ministrations. What War Bonnet did and how he treats disease will be told in an early number of the JOURNAL, in a paper which is being prepared, dealing with savage medicine. The child lived through the day and finally went to the Happy Hunting Grounds, well rubbed with bear fat, mixed with ground up herbs and the powdered bones of extinct animals dug up in the foot-hills of the Rockies.

THE sweet music of the Hawaiians and their remarkable dancing, draw big crowds every day, and this added to the persuasive eloquence of Tobin, the King of the Midway, who talks for the concession, makes the Hawaiian village, one of the most interesting and popular places to visit.

MRS. RED DEER added one to the population of the exposition on August 5, by giving birth to a girl. The child was born shortly after midnight and for four days no one except the mother and father knew of its existence. Red Deer acted as obstetrician and a few hours after the birth the mother got up and went to the commissary for the rations due her family. Four days later the discovery was made by a woman in the camp that there was a new baby in Red Deer's tepee. Mrs. Red Deer

has been doing her house work right along, and that consisted mainly of wood-chopping and cooking. Since then the Red Deer family has been getting rich fast, for they charge 5 cents to see the pappoose.

THE office of director of amusements has been created and Mr. L. W. Buckley has been appointed to fill it. He proposes a grand feast of fruits and flowers to last a week, beginning September 30, and to end with a fete day after the fashion of mardi gras.

THE wisdom of housing some of the best companies of fire fighters the city possesses at the Pan has been shown on several occasions. Alarms have been turned in and the apparatus has galloped through the grounds at breakneck speed almost before the bells have ceased to jingle out the alarm. It has been a splendid exhibition of Buffalo's excellence as regards its fire department, and has opened the eyes of visitors from other cities.

THE fact that the attendance jumps up on Tuesdays, Thursdays and Saturdays, the days when Pain is scheduled to make his fireworks display shows that the crowd wants a sky rocket show. And they get it. From the time the water ballet is complete until "good night" is shown in twinkling lights along the shore of the lake the heavens are ablaze with bursting rockets and floating star chains, and exploding bombs which release myriads of dazzling stars of many colors. Probably the most beautiful piece displayed is the Spirit of Niagara, showing the outline of the spirit in green; and then comes the falls, a flood of falling fire. It is gorgeous almost beyond description.

BOOK REVIEWS.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Ophthalmoscopy and Ophthalmoscopic Diagnosis. By PROFESSOR DR. O. HAAB, Director of the Eye Clinic in Zurich. From the third revised and enlarged German edition. Edited by George E. de Schweinitz, Professor of Ophthalmology, Jefferson Medical College, Philadelphia. With 152 colored lithographic illustrations and 85 pages of text. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, \$3.00 net.]

This is a translation from the third German edition and it is one of the most valuable of the series. Its value is increased by the fact that it was edited by Dr. G. E. de Schweinitz, of Phila-

delphia, which in itself is a guaranty that it is intelligible and that the plate work is beyond reproach. These ophthalmoscopic drawings are exquisitely executed, and in many cases microscopic lesions are shown. To those students who are beginning or are about to begin ophthalmic work, this book is simply invaluable. It is as necessary to him as is his knowledge of the anatomy of the eye, for it is the best work of its kind published and nowhere is there a more accomplished teacher and ophthalmologist than Dr. Haab.

Dr. de Schweinitz has edited the translation with a liberal hand and a confidence in his own knowledge which has been the means of adding to the value of the book. He has made comments freely throughout the text and to the illustrations he has added some from his own wide and varied experience. The book is not alone of use to students. Some of the teachers of ophthalmology might with great benefit study its style. It may not materially increase their personal knowledge of the subject, but it will make them better teachers.

N.W.W.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Obstetric Diagnosis and Treatment. By Dr. O. SCHAEFFER, of Heidelberg. From the second revised German edition. Edited by J. Clifton Edgar, M.D., Professor of Obstetrics and Clinical Midwifery, Cornell University Medical School. With 122 colored figures on 56 plates, 38 other illustrations, and 317 pages of text. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.00 net.]

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Labor and Operative Obstetrics. By Dr. O. SCHAEFFER, of Heidelberg. From the fifth revised German edition. Edited by Clifton J. Edgar, M.D., Professor of Obstetrics and Clinical Midwifery, Cornell University Medical School. With 14 lithographic plates, in colors, and 139 other illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$2.00 net.]

Here are two volumes of the Medical Hand-Atlas series which belong side by side, both from the pen of Dr. Oskar Schaeffer, of Heidelberg; edited by Dr. J. Clifton Edgar, of Cornell. The subject could hardly have been better presented by any author, while the work of editing the translation has been ably done by Dr. Edgar.

In the first work taken up, that on obstetric diagnosis and treatment, we have a really valuable book, and one which is of practical use. This is meant just as it is stated. It is not a figure of speech for the purpose of making a perfunctory review of one of a series of books which are all good in the departments of medicine they represent, nor is it said to be nice to a publisher or an author. That is not the JOURNAL's style. The book is of value and a practical one, for the very simple reason that it imparts information of a practical character in a practical way and in such form as to be interesting and assimilable. The examiners of student papers on obstetrics, if they are not blinded by faith, know that in many cases the information on the subject has

not been imparted—it has been forced into the mind of the soon to-be physician, in much the same manner as geese are prepared for the production of that expensive and indigestion-producing delicacy, *pate de foie gras*, by stuffing. A stuffed student is a sad object, and when he is stuffed with obstetrics he belongs in the danger class. That is why a book like this is of benefit to humanity. The first edition printed in the nineties was good; this is excellent. In its preparation Schaeffer has been “guided chiefly by the demands of the practical, clinical side of obstetrics.”

How much better would many a new doctor be equipped to deliver a woman, had his professor of obstetrics had ideas like these of Schaeffer's: “I have therefore attempted to build up a practical system in the basis of my own experience. . . . An effort has been made to discuss the symptomatology with the greatest fulness compatible with brevity, instead of dismissing the subject with a few stereotyped phrases which are of no use in the individual case.”

There is no known obstetrical condition or complication which is not referred to in this work and the illustrations are fitting accompaniments to the text. They are many and varied and by reason of the superior excellence of the plate and color work, are just about as near to good clinical instruction as one could very well expect in a book. There is nothing diagrammatic about them. They are nearly all original reproductions in color of obstetric conditions. Those which are not color reproductions are most excellent drawings to scale, and present the idea in its most interesting form. The more one goes into the book the more pronounced is the feeling of confidence inspired by the nicely rounded sentences, the incisive style of the author.

The scope of this atlas may be better realised by a glance at its divisions. Part I., under the general heading of physiology and dietetics of pregnancy, labor and the puerperium, takes up physiology and diagnosis of pregnancy; anatomy, development and examination of the pelvis; normal labor; the puerperium and treatment of the new-born infant. Part II., dealing with pathology and treatment of pregnancy, labor and the puerperium, treats of the pathology of pregnancy, including abortion and premature labor; deformities of the pelvis and their influence on pregnancy and labor; pathology of labor; general remarks on exploration for purposes of diagnosis and treatment; pathology of the puerperium; prescriptions commonly used in obstetric practice. Truly, such a book will be useful not alone to students, but to a whole lot of general practitioners who apparently overlook or forget that there should be some difference in the method of delivering a woman and an automaton.

In the volume devoted to labor and operative obstetrics, Schaeffer has made a valuable addition to the literature of the subject. He not only goes into the work exhaustively and ably

in the space at his command, but he has added much to the multitude of obstetric illustrations now in existence. These new representatives are not wholly diagrammatic either, and therein lies their chiefest value. They show obstetric conditions and manipulations never very clearly represented on paper before. The necessity for this volume is very clearly shown by the editor in his preface when he says: "Obstetric surgery is for the most part performed, as it were, in the dark; whereas, the gynecologist, by means of improved amphitheaters, Trendelenburg posture, and electric light, can demonstrate to his audience each step in a given operation. He is enabled to choose his hour for operating, and everything, including the patient, is ready at the appointed time.

"On the contrary, a version, the correction of a malpresentation or malposition, the removal of an adherent placenta, usually demand that there shall be no delays."

In addition to the new illustrations referred to, the book has been brought up to the immediate present and the latest accepted views and methods, which have fulfilled the requirements of scientific proof, are presented, concisely, it is true, but in a form understandable and direct. This alone places the book in an enviable position, for it stands quite alone in this respect and even in its concise form is much more complete than many of the larger and more pretentious text-books—and it is much more useful too, as a helpful reference work.

To this edition, the fifth, Schaeffer has added a number of chapters, among them being the best methods of inducing premature labor and surgical obstetric operations. There is, too, a new idea presented—something quite unusual in obstetric work. Presentations have been divided into three classes instead of the usual two—favorable and unfavorable. To these perfunctory classifications, Schaeffer has added a third, the relatively favorable presentation. When one remembers that all these presentations are most excellently illustrated it does not take much to see how very necessary such a gem of obstetric literature is, not alone to the student but to the general practitioner as well.

The operative section is generally divided into purely obstetric operations on the fetus and ovum, and surgical obstetric operations on the mother. A further subdivision gives us: preliminary operations, operations during labor, and operations immediately following labor. In each subdivision the various methods are given in the order of their severity and the degree of danger involved.

There is a reason for this method for Schaeffer has found it most satisfactory in his teachings, and it more clearly emphasises the warning to the practitioner always to try the most conservative and least dangerous procedure first. The first part of the book deals with the act of parturition, considered from the standpoint of the practical obstetrician. In it are taken up positions

of the fetus favorable for eutocia; presentations resulting from deformities of the pelvis or certain other typical conditions which may be specially favorable, or at least not unfavorable, for such conditions; positions and presentations which in themselves produce dystocia.

The second part concerns obstetric operations as follows: simple obstetric operations on the fetus and ovum, for correcting position, replacement of prolapsed parts; version; perforation and cranioclasia, embryotomy. Operation during labor includes expression, manual extraction, instrumental extraction.

Surgical obstetric operations include the induction of abortion and premature labor; dilating parturient canal; delivery of the child through artificial passages; repair of lacerations and post partum operations.

The illustrations are almost beyond criticism. They are most admirably executed in color and show every obstetric condition and complication which could possibly be met with in practice. A careful study of the plates and drawings is the next best thing to actual clinical experience. They show every condition with a degree of naturalness which was quite unknown previous to the issue of these handy and valuable books of the medical hand-atlas series. Even if one is not particularly interested in the practice of obstetrics, the books should be owned for there is much material in them which bears on other subjects.

N. W. W.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A practical Exposition of the Methods, other than Drug-giving, useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia and Rush Hospitals, etc. In eleven octavo volumes. Volume I. Electrotherapy. By George W. Jacoby, M. D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children; and to the Craig Colony for Epileptics, etc. In two books. Book I. Electrophysics—Apparatus Required for the Therapeutic and Diagnostic use of Electricity. Book II. Diagnosis; Therapeutics. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, eleven volumes, \$22.00 net.]

This system marks a departure in the literature of therapy. It will attract attention because there is no similar series in the English language. These first two volumes of the series are devoted to the consideration of electrotherapy—the first to Apparatus and Methods; the second, to diagnosis and therapeutics. The author, George W. Jacoby, has undertaken to present all that is known in regard to machines for the generation and application of medical electricity, including all its surgical uses and radiography. A knowledge of the laws governing electrical forces is as important to the electrotherapist as to the industrial electrician. The commercial uses of the current are

constantly changing and improving; the same is claimed for electricity in its medical aspects. We wish this were true and we hope it is; but so much has been claimed for it and so little has been resultant from it that our scepticism may be pardoned.

The work of this author in collecting everything of known value in regard to diagnostic therapeutics, to which the second volume is assigned, is most commendable. The student of electrotherapeutics must turn to this work for his guidance, and the specialist will need it to keep him abreast of the special applications of electricity in the treatment of disease.

The books are handsomely printed and well illustrated, the flat back style of binding, so popular in library series, having been adopted.

PROGRESSIVE MEDICINE, VOL. II., JUNE, 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 460 pages, with 81 engravings and one full-page plate. Issued Quarterly. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, \$10.00 per year.]

This volume corresponds with its predecessors as to size, style and make-up. The subjects dealt with are: Surgery of the abdomen, including hernia, by William B. Coley; Gynecology, by John G. Clark; Diseases of the blood and ductless glands, the hemorrhagic diseases, and metabolic diseases, by Alfred Stengel, and Ophthalmology, by Edward Jackson. The recent technic of various operations for radical cure of hernia are herein detailed as well as the operative treatment of gastric and intestinal diseases, while spinal anesthetisation in gynecologic operations is thoroughly set forth. An important chapter on the blood is introduced and the recent achievements of ophthalmology are recorded. The articles are published in extenso and represent the most advanced views of experts on the several subjects taken up. The illustrations are high-class and amplify the text most clearly. *Progressive Medicine* was awarded the grand prize at the Paris Exposition of 1900.

THE ACUTE CONTAGIOUS DISEASES OF CHILDHOOD. By MARCUS P. HATFIELD, A. M., M. D., Professor Emeritus of Diseases of Children, Northwestern University Medical School; Professor of Diseases of Children, Chicago Clinical School; Attending Physician, Wesley Hospital. Pages 142. Chicago: G. P. Engelhard & Co. 1901. [Price, \$1.00 net.]

Dr. Hatfield presents a little book which contains chapters on scarlatina, measles, röteln, mumps, whooping cough, vari-cella, variola, and influenza. Of each disease some account of the history, clinical history, prognosis and treatment, prophylaxis, pathology and bacteriology are given. The author in the preface says that no attempt to write an original work has been

made, but rather a compilation from various writers, especially the later French and German pediatricians, has been attempted. The compiler's own experience is drawn upon, however, and with profit. None of the topics discussed are gone into deeply, but the volume is clearly written and very readable.

M.J.F.

THE TREATMENT OF FRACTURES. By CHARLES L. SCUDDER, M. D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Second edition, revised and enlarged. Octavo, 433 pages, with nearly 600 original illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Polished Buckram, \$4.50, net.]

Nine months after the appearance of the first edition of this work a second edition was published. From the start it took a high place in the literature of fractures, which it bids fair to hold for an indefinite period. In the present edition many x-ray plates have been reproduced which will enable the reader to interpret them without the experience of an expert; a series of clinical cases has been introduced to elaborate the chapter on fractures of the skull, and numerous illustrations have been added to the chapter on plaster-of-Paris. These are the essential changes in the second edition. It is easily one of the most helpful books that have been added lately to the literature of surgery. It deserves a place in every physician's library.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. Thirteenth annual meeting held at Louisville, September 18, 19 and 20, 1900. William Warren Potter, M. D., Secretary. Philadelphia: William J. Dornan, Printer. 1901.

This association has issued in this instance one of its best volumes, which is saying a good deal among so many that are good. This book is not quite as large as some of the annual transactions of this organisation but there is no padding in it, every article being of value, while some are decidedly strong in originality. Moreover, the discussions are even more forceful than ever, and these are of utmost value to both general practitioner and specialist. The illustrations, too, are among the best; by and large, therefore, we unhesitatingly pronounce this one of the most interesting and instructive of the transactions' volumes for the year. The next annual meeting of the association will be held at Cleveland, September 17, 18 and 19, 1901, as announced on another page, *q.v.*, at which Dr. William E. B. Davis, of Birmingham, Ala., will serve as president.

BOOKS RECEIVED.

The Diseases of the Respiratory Organs, Acute and Chronic. By William F. Waugh, A. M., M.D., Professor of Practice and Clinical Medicine, Illinois Medical College, etc. Pages 221. Chicago: G. P. Engelhard & Company, 1901. [Price, \$1.00, net.]

The Ready Reference Hand-Book of Skin Diseases. By George Thomas Jackson, M.D., Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. New (4th) edition, thoroughly revised. In one 12mo volume of 617 pages, with 82 engravings and 3 colored plates. Philadelphia and New York: Lea Brothers & Co. 1901. Price, cloth, \$2.75, net.

Syphilis: Its Diagnosis and Treatment. By William S. Gottheil, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the West-Side German Dispensary, etc. Profusely illustrated. Pages 216. Chicago: G. P. Engelhard & Company. 1901. [Price, \$1.00, net.]

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by Henry W. Cattell, A.M., M.D., of Philadelphia, with the collaboration of John B. Murphy, M.D., of Chicago; Alexander D. Blackader, M.D., of Montreal; H. C. Wood, M.D., of Philadelphia; T. M. Rotch, M.D., of Boston; E. Landolt, M.D., of Paris; Thomas G. Morton, M.D., and Charles H. Reed, M.D., of Philadelphia; J. W. Ballantyne, M.D., of Edinburgh, and John Harold, M.D., of London. Volume II. Eleventh series. Philadelphia: J. B. Lippincott Company. 1901. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

The Diagnostics of Internal Medicine. A Clinical Treatise upon the Recognised Principles of Medical Diagnosis, prepared for the Use of Students and Practitioners of Medicine. By Glentworth Reeve Butler, A.M., M.D., chief of the second medical division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital, etc. Large octavo, pp. 1077. With five colored plates and 246 illustrations and charts in the text. New York: D. Appleton & Company. 1901.

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc.; and F. F. Burghard, M. D. and M. S. (Lond.), F.R.C.S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In seven imperial 8vo volumes, with illustrations. Volume V., 482 pages with 145 illustrations. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$5 00 net.]

Treves' Surgical Applied Anatomy. New edition. Revised by the author with the assistance of Arthur Keith, M. D., F.R.C.S., in one 12mo volume of 576 pages with 80 engravings. Philadelphia and New York: Lea Brothers & Co., Publishers. 1901. [Price, cloth, \$2.00 net.]

The Illinois State Board of Health. Report of the Sanitary Investigations of the Illinois river and its tributaries. With special reference to the effect of the sewage of Chicago on the Des Plaines and Illinois rivers prior to, and after the opening of the Chicago drainage canal. Secretary, J. A. Egan, M. D.

The Estivo-Autumnal (remittent) Malarial Fevers. By Charles F. Craig, M. D., (Yale), Acting Assistant Surgeon, U. S. Army; Pathologist and Bacteriologist to the U. S. General Hospital, Presidio of San Francisco, Cal.; Late Director of the Bacteriological Laboratories of the Sternberg U. S. A. General Hospital, Chickamauga Park, Ga., etc. 8vo., pp. 231. Illustrated by two colored plates and 21 clinical charts. New York: William Wood and Company. 1901.

ITEM.

State Medical Examining Board.

THE State Medical Examining and Licensing Board, representing the Medical Society of the State of New York, held a special meeting at Buffalo, August 29-30, and 31, 1901. The sessions were convened at the Kenilworth.

BUFFALO MEDICAL JOURNAL.

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No. 3.

ORIGINAL COMMUNICATIONS.

A Plea for the Broader Treatment of Epilepsy.¹

By WILLIAM P. SPRATLING, M. D., Sonyea, N. Y.

Medical superintendent, Craig Colony for Epileptics; member American Medico-Psychological Association, New York County Medical Society, Buffalo Academy of Medicine, Rochester Pathological Association; Secretary National Association for the Study of Epilepsy, etc.

BECAUSE of the great range and variety of its symptoms, no one of which is pathognomonic, epilepsy is unlike any other disease, and because of its protean character, it is most difficult to treat. The old definition declaring it to be "a disease characterised by tonic and clonic convulsions and followed by a loss of consciousness;" is happily passing from the field of scientific medicine.

As difficult as it is to frame a satisfactory definition of insanity, it is more difficult still to formulate one that will describe epilepsy, for as yet its etiology is too obscure; its manifestations too varied and inconstant; its results too unequal; its pathology too little known. It is my conviction that a broader treatment of epilepsy cannot be successfully undertaken in the absence of a broader and clearer understanding of its many causes, forms, phases and manifestations; and I propose to speak of some of these at this time in the briefest manner possible. Like insanity, epilepsy is most likely to develop at certain ages, though its epochs are not so numerous as are those of insanity.

In a paper read by the writer before the New York County Medical Society in 1894, the data for which was obtained from a study of several thousand cases admitted during a period of fifteen years to the New Jersey State Hospital at Morristown,

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

reference was made to six distinct epochs at which insanity was likely to occur, all of them being strictly physiological save the epoch of heredity, that being patho-physiological, the term being used to include several cases in which insanity developed in the offspring at the same age it appeared in the parent.

As yet, we have been unable to establish a corresponding epoch in epilepsy, though I would not say that it does not exist. Early childhood, from the sixth month to the seventh year; puberty, in the female, from the thirteenth to fifteenth year; in the male, from the fourteenth to the sixteenth year; maternity; the epoch of heredity; the menopause and senility, were the six epochs named.

The relative frequency with which epilepsy and insanity arise at the different epochs they share in common, differs greatly. Epilepsy is vastly more common in childhood than later in life, while insanity is rare in childhood. In fact, of the six epochs, they share but three in common: early childhood, when, as just stated, insanity is rare and epilepsy common; puberty, when either epilepsy or insanity may arise in equal proportions; and senility when insanity, or physiological decay is common and genuine epilepsy extremely rare.

In mentioning these coincident periods that favor the development of these two diseases, let me call your attention to the important fact, that in their effects on the mind they are much alike; both attacking the individual when the organism is passing through a period of profound physiological disturbance, and is least fitted to withstand it, both having a common basis in the brain, and both impairing to some degree, the faculties of the mind.

Epilepsy is essentially a disease of early life. The epileptic age begins in infancy and terminates in nearly 85 per cent of all cases before the twentieth year; and in 16 per cent. of all cases, it comes on before the end of the third year.

What causes its development so early in life? To this there is but one answer, and that is, heredity and stress. Under heredity, we have as factors in the family that predispose to, or cause the disease in the offspring in the order of their importance: epilepsy, alcoholism, insanity and tuberculosis, and in some cases to an extent not yet determined, syphilis, when it affects the central nervous system, and possibly rheumatism.

Under stress, we have the following causes acting intrinsically or extrinsically, and which do not require a soil prepared by

heredity to cause the disease, but which makes its origin more certain if such preparation has been made: external violence—such as a blow on the head; internal violence—such as a hemorrhage in the brain, or on the brain; psychic—such as shock from any cause; chemical—such as the presence of toxic substances in the gastro-intestinal canal.

First taking up epilepsy itself in the parent as a cause of the disease in the child, we found that out of a total of 1070 cases—660 males and 410 females—it was transmitted to 15 per cent. of the males and 17 per cent. of the females, or 16 per cent. all told. Alcoholism was established as a family cause in the same 1070 cases, in 111 males and 51 females; 16 per cent. of the former, and 12 per cent. of the latter, the aggregate for the two being 14 per cent. Insanity in the parents, in the same cases caused the disease in 49 males and 42 females; $7\frac{1}{2}$ per cent. of the former and $10\frac{1}{2}$ per cent. of the latter.

It seems clear that more males acquire epilepsy as a result of alcoholism in the parent than do females, while more females acquire it as a result of insanity in the parent than do males. Tuberculosis was definitely established in the immediate ancestors in 101 males or 12 per cent., and in fifty females or 14 per cent. the two combined giving over 13 per cent. Collectively, we found either epilepsy, alcoholism, insanity or tuberculosis, and in some instances two or more of all these, to be hereditary factors in 56 per cent. of the 1070 cases studied; leaving 44 per cent. not due to inherited causes.

Now besides the active and important part played by heredity in this disease, we must also consider the influence of stress and can best do it under the subdivision laid down above. As to the frequency with which external violence causes epilepsy, I can present no figures at this time, and only make the general statement that trauma is sometimes responsible for the disease. Children often get a blow on the head and nothing is thought of it until years after when convulsions arising, the blow is recalled, and the convulsions ascribed to it. We ought to be careful in accepting without challenge such a cause, especially in cases when heredity is bad.

A blow on the head that crushes the skull so that it injures brain tissue, and is followed by convulsions, does not to my mind any more imply the presence of epilepsy than do the convulsive movements of the frog subjected after decapitation to the irritation of a galvanic current.

Convulsions alone do not constitute epilepsy, but in a case of brain injury, unless the irritation is removed within a reasonable time, and the length of this time depends upon the stamina of the individual, the convulsions may become fixed, and eventually acquire all the characteristics of, and pass into true epilepsy. There is but one safe rule to follow in such cases, and that is to repair the injury as soon as possible.

Internal violence: hemorrhage within the brain or beneath its coverings, was found to have caused the disease in 116 cases or 11 per cent. of the entire number studied.

The brain palsies of early life that cause epilepsy may be manifested in the form of hemiplegia, paraplegia, or diplegia; the two latter being comparatively rare. The seat of the lesion in these cases is to be found in the hemispheres; the central motor neurons being involved in that part of the direct motor tract which extends from the brain cortex to the spinal cord as far as the anterior horn.

Brain palsies more often occur during the first three years of life. About one-third of all cases are congenital, the rest being due to injuries received at birth; to the stress of dentition in favorable subjects, and to causes that lead to embolism and thrombosis; these being injuries and the infectious fevers, such as pneumonia, whooping cough, measles and scarlet fever.

Sixty-seven of the 116 cases were males and 43 females—62 suffering from left and 51 from right hemiplegia; 3 being diplegics.

We have often seen epileptics whose disease was caused by cerebral palsy, and in which the cause had gone unrecognised because the marks of the paralysis had become so indistinct.

It often requires the most careful inspection with the patient completely stripped, with accurate comparative measurements of the legs and arms, the testing of the muscular power and of the various reflexes, in addition to a close and systematic inquiry into the patient's early personal and family history, to bring the true cause to light.

There is no question but what the stress of psychic violence, if I may so use these terms, sometimes causes epilepsy. Three cases of the kind in young children have come under my observation during the past two years. It was caused in two of them by the violence of a drunken father, and in the other by the attack of a vicious dog.

Chemical causes, in my opinion, play an important part in

the production of epilepsy, and by chemical causes I mean all toxic agencies generated in the body or introduced from without.

It seems that there must be some local relationship between the gastric aura, which we find in nearly 20 per cent. of all cases, and the epilepsies due to gastro-intestinal poisoning; nor is it unreasonable to suppose that serum-therapy may not some day be used to advantage in the treatment of cases of this kind. This is not surprising after the statements recently made by Dr. Ford Robertson, pathologist to the Scottish asylums, that paresis is not primarily a disease of the brain, but has its origin in toxemic conditions in the intestinal canal.

So far we have learned two things: (1) that nearly 85 out of every 100 epileptics acquire the disease before they reach the age of 20 years; (2) that the four factors in heredity: epilepsy alcoholism, insanity and tuberculosis, in addition to the cerebral palsy cases of early life, constitute 67 per cent. of all the cases we have to deal with.

These facts furnish a good working basis for treatment thus far. It teaches us that the time to treat epilepsy is when the epileptic is young and the disease but recently developed. Not many cases of epilepsy can be cured, but no one can say off-hand what case is curable and what is not.

I believe that much of the surgical work done for the relief of epilepsy should not be done. In some cases the operation is put off until the disease has become so thoroughly established that it is not removable by any means, and least of all can it be excised with the knife. Again, I have seen many trephinations done in cases in which the epilepsy was unquestionably inherited. I believe the great principle of *non-nocere* should be made to apply in these cases. Before we do any sort of an operation for the relief of epilepsy, we ought to study the case closely from every side, taking into account hereditary factors, if any; the character, frequency and duration of the seizures, and especially should we consider the mental condition of the patient at the time; for if this has been impaired, I question whether an operation is ever justifiable as a means of cure; but I do not say it should not be done as a palliative measure.

Nothing is further from my mind than to create the impression that epilepsy is incurable and that but few, or none, can be benefited, for I know by experience that some of these cases can be cured, and that fully 75 per cent. of all—irrespective of cause or condition—under systematic and long-continued treatment

can be greatly benefited. I only plead for a closer inquiry into the causes of the disease, in order that broader forms of treatment may be instituted.

DISCUSSION.

Dr. F. S. CREGO, Buffalo.—In regard to Dr. Spratling's paper, I wish to say that my observation has directed me to believe that injury to the skull is a very much greater factor in the causation of epilepsy than the doctor has given it in his paper. I think a large number of these cases that are put down as hereditary are really due to injury to the skull during birth, during the passage of the head through the straits, and I have confirmed that by a large number of post-mortems on epileptic children; and in view of that fact I am a great believer in injury to the skull as a cause of epilepsy, and am not a great believer in inheritance. I think a large portion of cases of epilepsy arise from injury to the skull. The paper is very interesting indeed, and especially the paper of Dr. Clark is interesting in view of the fact that a large number of these cases are cured now since the new method of treatment, the salt starvation, has been introduced.

Dr. L. P. CLARK, Sonyea.—I would say in regard to the liability to injury during birth, and that being a cause of epilepsy, it is held so frequently to be the case by a number of obstetricians that recently I had occasion to go over statistics of several thousand epileptics, and in each instance the cases were all carefully recorded. I found in that that it was ten to one, the prolonged labor against a possibility of trauma from obstetrical intervention. I think that one thing that general practitioners, and especially obstetricians, should bear in mind in regard to the birth of neurotic children, is, that the prolonged labor is ten times to one more liable to cause nervous lesion and neuroses and things of that sort than that of instrumental delivery. Prolonged labor and its attendant changes is to me one of the most frequently observed causes in the epileptic etiology, and I think Freud and Gowers, and Wollenberg, of Vienna, have recently again called attention to the fact that the dangers of prolonged labor are very great indeed, and that skilled attention from the hands of obstetricians should be given early, and not permit the child to suffer all the attendant evils which prolonged labor would induce.

Dr. WM. C. KRAUSS, Buffalo.—I would like to ask Drs. Spratling and Clark what number of cases are being trephined for traumatic causes?

Dr. SPRATLING.—We have received a large number of epileptics who have been trephined. We have operated on a few ourselves, in which we have taken into consideration hereditary

factors, but so far we have been unable to benefit a case permanently.

Dr. KRAUSS.—I had a case in 1891 which Dr. Mynter operated on for me, where the patient had received injury to the frontal bone by an explosion. There was a well-marked depression from below, and at the time of the operation the patient was in a condition of status epilepticus. Quite a large portion of the frontal bone was removed and the patient recovered, although he used the bromides for several months afterward. Sometime after the operation the attacks reappeared, almost as severe as before. He underwent a second operation. The attacks ceased for about two years. They reappeared, and a third operation was undertaken. Almost the whole of the frontal and part of the parietal bone were removed, and now the attacks are practically as severe as ever. I have at the present time two or three cases of epilepsy where the origin is supposed to be traumatic, and I have very hard work to keep the family from having an operation. I told them repeatedly that the chances are that an operation will do no good at all, and that the bromide treatment, or the modified treatment, and the hygienic treatment is about as good a treatment as can be given. I am very glad to hear from the two physicians from the Craig Colony, whose experience is perhaps the best in this country.

Dr. S. F. SNOW, Syracuse.—I do not wish to be considered an epileptic specialist or expert, but a case of epilepsy came under my care about seven years ago that had quite a particular interest in it. The patient had been through a thorough course of treatment with bromide, and with the varying results we all know so well of, before the idea of salt starvation came in. She was sent to me, I think, by Dr. Young, of Newark. Following along the line of the thought that there must be some nerve irritation, I examined the interior of the nose and found a badly deflected septum, with a heavy outgrowth; and not knowing surely that this would help the patient, still on general principles I advised the removal of that outgrowing septum, and I removed that. There was a marked improvement in the case from the removal of that pressure, and this improvement continued as long as we could keep the nasal membrane in a fairly healthy condition. The patient, from having a seizure every two or three days, would sometimes go two months without them, and she became quite a useful member of society. I have heard that she was engaged as an organist. There was a time for two or three years that she remained better. Then the seizures returned, and she came to me and made arrangements for straightening the nasal septum. I wished to see her at the hospital, but when she got into our city she fell into the hands of a homeopath, who advised an operation of trephining through the skull, and I understand she went through it and died. That case taught me that there are a few of these people

who have their seizures through pressure within the nose. I don't know what the percentage may be, but I have felt very much impressed with it.

Dr. L. A. WEIGEL, Rochester.—Dr. Clark referred to prolonged labor as a possible cause of epilepsy, and I would like to ask him whether the other conditions, of premature labor, and so on, might not have a similar influence. Some years ago Dr. Little, of London, wrote rather a classical paper on the nerve phenomena that follow those conditions, premature labor, prolonged labor, instrumental delivery and asphyxia, and in all of the cases of so-called spastic paralysis that I have seen, every case, if I remember rightly, has given the history of either one of those conditions. Dr. Little ascribed the damage to the brain, to capillary hemorrhage, which later on produced the destructive changes in the brain tissue.

Dr. CLARK, Sonyea.—Replying to Dr. Weigel's inquiry, I will say that those experiences have been mine exactly, that the premature labor, prolonged labor and instrumental delivery are productive of the spastic cases of surface hemorrhages, and Bashaw, of London, who has written extensively on the matter, and Mr. Nutt, in this country, have demonstrated that the prolonged labor has been the cause that in the majority of cases has produced this type.

Dr. SPRATLING, Sonyea.—Dr. Crego, I am afraid, got the idea that I do not believe that trauma can cause epilepsy. I attempted to state clearly that I think it does sometimes cause it, but I made a distinction between epilepsy caused by injury in utero and cases of injuries received afterward. I class them all as among the palsy cases of early life.

Removal of the Cecum for Carcinoma—Recovery.¹

By W. L. CONKLIN, M. D., Rochester, N. Y.

CARCINOMA of the cecum is of comparatively rare occurrence, and at the same time possessed of peculiar features which render its diagnosis obscure and its treatment difficult. Ziemssen states that of 9,000 fatal cases of carcinoma only about 4 per cent. were intestinal. While the rectum is involved in 80 per cent. of intestinal carcinomata the cecum is affected in only $4\frac{1}{2}$ per cent. Carcinoma of the cecum, then, occurs in about $\frac{18}{100}$ of 1 per cent. of all cases of carcinoma.

In view of the fact that recent investigations regarding the etiology of cancer seem likely to establish its germ origin we

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27-28, 1901.

may infer that the traumatism which so often precedes cancer of the cecum has acted only as a predisposing cause, by weakening the resisting power of the tissues.

Many of the symptoms of this affection might easily be mistaken for those due to chronic appendicitis, indigestion, or fecal impaction. Pain, loss of flesh and strength, a tumor in the right iliac region and a cachexia, which is perhaps more pronounced in intestinal than in other varieties of cancer, are the most prominent symptoms. The pain is apt to radiate toward the umbilicus or down the thigh, and varies in character and intensity, from a mere feeling of discomfort, during or after meals, to severe and prolonged intestinal colic.

If the growth be of the annular variety, symptoms of intestinal obstruction may develop and suddenly become alarming in character. Vomitus, with a fecal odor or taste points to obstruction, which may be due to intestinal carcinoma. In one reported case such vomiting occurred a year before any tumor could be detected. Concurrent attacks of appendicitis are of not infrequent occurrence, during the course of this disease. Dr. Charles G. Cumston has recently reported a case of Carcinoma of the Cecum, Complicated by Appendicitis. It would seem that in the case, which I am about to report, continued appendicular colic culminated in an attack of appendicitis, with the formation of pus, and that this, in turn, was followed by the development of cancer of the cecum. It is, however, difficult or impossible to determine at what period the element of malignancy became a feature of the case.

The only treatment, other than palliative, consists in the removal of the diseased cecum. Morrison, of Birmingham, Eng., states that the earliest successful case of excision of the cecum which he can find recorded was reported by Billroth in 1883, and that 22 cases were collected by Rolleston and Shield up to the end of 1896. The mortality rate of this series was 50 per cent.

An early diagnosis, before symptoms of serious obstruction appear; the presence of an annular rather than a diffuse growth and the absence of glandular involvement are conditions greatly increasing the probabilities of recovery after operation. Fortunately, glandular involvement is often delayed or absent. Ziemssen says: "Primary cancer of the intestines generally remains as an isolated tumor;" while Mayo states, in a recent paper, that "Glandular infection occurs in less than one-half of the cases dying from this malady."

G. K., grocery clerk, aged 43, was first seen by me in consultation with Dr. Stocksclaeder, June 18, 1900. The following history was obtained: In August, 1899, he had fallen in such a way as to strike the right side of the abdomen against the edge of a box, causing considerable pain. The following January he began to have attacks of abdominal pain, which were attributed to indigestion. Three months later he first consulted Dr. Stocksclaeder. On examination the doctor found a small mass, somewhat tender on pressure, in the region of the appendix. The temperature was normal and pulse nearly so. A marked cachexia was noticed. The patient was informed as to the necessity of remaining quiet and the possible need of operation and sent home. The condition then present improved so that work was soon resumed, and continued until about a week before I was called.

During this illness there had been, up to the day I saw him, but little disturbance of pulse and temperature, but pain had been complained of in the right iliac region and a large tumor could easily be recognised. Operation, though strongly urged, had been refused. Just preceding my visit there had been a prolonged chill, with rapid pulse and rise of temperature. This was followed by profuse perspiration. Extreme pallor was noticed and chronic nephritis suspected, as its cause. It seemed evident that we had to deal with an appendicular abscess with beginning septic infection. An operation was reluctantly consented to, and performed that night.

A large amount of pus was found, walled in by firm adhesions and it did not seem wise to disturb these in an attempt to find and remove the appendix. Threatening symptoms of sepsis disappeared at once and under Dr. Stocksclaeder's care the patient made a rapid recovery, leaving the hospital in about two weeks. The incision was entirely closed, with an apparently firm cicatrix, in about a month.

An attempt was made to resume work, but more or less discomfort was complained of around the scar. Four weeks later a small abscess suddenly developed at one side of the cicatrix, broke and discharged for a few days. A small fistulous opening remained, with slight discharge of thin purulent fluid, having at times a fecal odor.

November 12, the patient was seen by Drs. F. H. Zimmer and Richard Moore in consultation. At this time the extreme pallor, which had been noticed before, still continued, although iron and arsenic had been given freely. There was marked infiltration of the tissues on either side of the fistulous opening. Operation was advised, and on November 14, at the City Hospital, I made an incision near and parallel to the cicatrix and entered what seemed to be the old abscess cavity. In this cavity there was a small amount of pus and considerable necrotic tissue. The cavity

was flushed with salt solution and packed, a counter opening having been made in the loin, and a drainage-tube inserted. It was thought advisable to give nature another chance to bring about closure of the fistulous opening in the bowel.

Following this operation there was a discharge of fecal matter, abundant at first but gradually diminishing in amount. The cavity was packed with gauze—a large amount being required for two weeks following the operation. On the sixth day, when patient was using bed-pan, the orderly noticed a strip of gauze in the pan. He cut this off and I was notified by telephone of the somewhat unusual result following the laxative enema. I found one end of the gauze packing protruding from the anus and by gentle traction removed about one and a half feet of gauze. Evidently the packing had found its way through the fistulous opening into the cecum, and I could only account for its appearance in the rectum on the supposition that a fistulous communication had been established between the cecum and rectum.

Although the amount of fecal matter discharged from the fistulous opening diminished for a time, there seemed to be no improvement after about December 15th. There was marked and increasing infiltration of the abdominal wall about the opening. The possibility of this infiltration being due to the development of a malignant growth, was suggested by Dr. F. W. Zimmer. Microscopical examination tended to confirm this opinion and on December 31, with the assistance and counsel of Drs. Zimmer and Moore, and other physicians present, I operated for the removal of this growth and the repair of the bowel.

An elliptical incision was made through the skin, outside the mass of indurated tissue which surrounded the fistulous opening. The infiltration had involved fascia, muscle and peritoneum, making it necessary to sacrifice a large area of abdominal wall. This infiltrated mass was firmly attached to the cecum, which had, through its entire length undergone the same pathological change. Firm and extensive adhesions made its liberation and removal very difficult. An attempt was made to make use of a potato button to facilitate anastomosis of ileum with ascending colon, but without success. Had the button been large at one end and small at the other, corresponding to the difference in caliber of colon and ileum, it might have been of service. Though this difference in caliber increased the difficulty of end-to-end anastomosis, it was finally accomplished by means of the Czerny-Lembert suture. It had been necessary to remove so

much peritoneum that it was impossible to bring its edges together for about one-half the length of the incision. Silkworm gut was used for the remaining sutures, but the tension was so great as to make it necessary to remove most of them two or three days later.

On the day following the operation the patient became very much distended. His pulse increased in rapidity until it reached 160, while the temperature was 103°. Failing by other means to relieve the distension, I did an enterostomy in the median line, below the umbilicus, suturing the edges of the intestinal incision to the peritoneum and fascia. This was followed by free escape of gas and fecal matter and immediate relief of distension. The pulse dropped in six hours to 130 and in twenty-four to 112.

Improvement was slow but practically uninterrupted. There was very little, if any, discharge of fecal matter at the point of anastomosis, but the discharge of pus was free and for a time extremely offensive.

In its center the edges of the incision were at least four inches apart, but by a gradual process of granulation and contraction a firm and comparatively narrow cicatrix formed in about eight weeks.

The patient left the hospital nine weeks after the last operation and for six weeks has been following his usual occupation. He is apparently in good health.

Following is the report of Prof. Charles Wright Dodge, of the University of Rochester, to whom the growth was submitted for microscopical examination.

August 6, 1901.

My Dear Doctor Conklin:

I find the condition of the cecum sent for examination to be due to the presence of a carcinomatous growth. The mucous membrane of the cecum itself is entirely eroded and the colon is becoming involved.

Very truly yours,

CHARLES WRIGHT DODGE.

720 SOUTH AVE.

DISCUSSION.

Dr. F. S. HIGGINS, Cortland.—It seems these cases must be somewhat more common than Dr. Conklin's figures would indicate. I understood him there is only .18 of 1 per cent. reported. I must think some of this is due to difficulty of diagnosis. I had one very hard case, which I was unsuccessful with. It seems to me in diagnosis, the age is important, the temperature is important, being so low in the cancerous and normal in appendi-

citis. These points, it seems to me, will help us out in the future. In my own case the woman was past fifty. I can't help but think, too, that some of these cases that are simply inflammatory have been called cancerous. I know a doctor who came to our county and operated on a man with all the signs of cancer, and it was so reported by the microscopist, and the patient got well. It seems to me one of two things must be true. If it is cancerous you can't remove it; if it is inflammatory, with or without an operation, he may possibly recover. In this case, of course, the report of the microscopist would show there was cancer. I am sure it must be very difficult, as they infiltrate deep into the muscles, and in the case I had way back into the hip-joint.

The Choice of an Anesthetic for Children.¹

By EDWARD JUDSON WYNKOOP, Syracuse, N. Y.

IN GOING over the literature of the past few years the reference to anesthetics occurs with increasing frequency, showing that the interest in this important branch is beginning to receive its deserved attention. Nothing so thoroughly shocks the profession and laity as a death during anesthesia, and to avoid this calamity, every physician and surgeon strives. That deaths during anesthesia do and will occur, we all realise, but if greater care can be taken in the choice of an anesthetic anaesthetiser, and in the physical examination, at least, the death-roll might be lessened.

In the choice of anesthetics for children many things are to be considered, and the old saying, "chloroform for pregnant women and children, ether for adults," will bear further investigation. The most popular anesthetic for children today is unquestionably chloroform.

In speaking of anesthetics, this paper will consider simply four, which probably today are the most in use in this country, namely—chloroform, ether, nitrous oxide gas, and bromide of ethyl.

For some time past various committees have been appointed to determine the action of the different anesthetics. The reports of the Hyderabad Commission, which pointed out that chloroform kills through paralysis of respiration, and occasionally through paralysis of the heart, is no longer accepted, and even its chairman, Lauder Brunton¹, says, "that if we drive chloroform

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

into the trachea or air into the lungs, loaded with chloroform, it will be absorbed in sufficient quantity to paralyse the heart." Wood² states, "that this is a practical giving away of the whole case of the Hyderabad Commission, at least, as I have understood it, and I believe it to have been understood by the general profession." More recent investigations³ have proven conclusively that chloroform is a depressant to the circulation, and more often kills by paralysis of the heart than by paralysis of respiration. Chloroform is direct poison to the heart muscle, and by its action reduces blood pressure.

According to Hare, the cause of death is often caused by vaso-motor paralysis, allowing the patient to bleed to death in his own blood-vessels⁴. The irritant effect of chloroform upon the kidneys is less marked than ether, although transitory albuminuria⁵ is quite likely to occur even when no evidence of albumin was present before the narcosis. It does not, as a rule, irritate the throat and lungs, if properly given, and vomiting is an unusual occurrence when proper attention has been given the stomach of the patient. Except, then, for its action on the heart and respiratory center, chloroform is an ideal anesthetic, but, knowing as we do this action on the heart, are we justified in its routine use? Ether, which is a well-known cardiac stimulant⁶ has some disadvantages. It requires more of the anesthetic to get a patient narcotised. By some it is claimed that it is a marked irritant to the throat, lungs and kidneys, and liable to provoke vomiting.

Bromide of ethyl is a cardiac depressant resembling chloroform⁷ in its action, causing muscular rigidity⁸ and a tendency towards hemorrhage.⁹ It is liable to impurities and it has no advantage over chloroform.

Nitrous oxide gas is probably more often used than any other anesthetic, and owing to its physiological action, death is not common. The objection to its use lies in its very short stage of anesthesia, allowing only the shortest possible operation to be done. It has been proven that the cause of this anesthesia is due to asphyxia¹⁰. Statistics offered through Dr. George M. Gould,¹¹ of Philadelphia and the Lancet Commission, prove conclusively that deaths during chloroform anesthesia occur more often than when ether is used. For instance: 638,461 administrations of chloroform anesthesia, a total of 160 deaths; 300,175 administrations of ether, with a total of 18 deaths; chloroform mortality, 1 to 3,749; ether mortality, 1 to 16,675.

Though nitrous oxide gas is far more safe than ether and chloroform, yet the stage of complete anesthesia is so short, its effect in operative work is slight; however, in statistics given, when nitrous oxide gas proceeded the use of ether, the death rate was even less than with ether alone,¹² yet today many physicians prefer chloroform to ether.

P. Wagner¹³ gives the record of deaths as follows: Pentall, 1 in 199; chloroform, 1 in 2,900; chloroform and ether, 1 in 4,100; bromide of ethyl, 1 in 450; ether, 1 in 15,500.

The report of the German Surgical Society¹⁴ shows the proportion of deaths from chloroform much greater than from ether. The statistics everywhere obtainable, both in this country and other countries, show the mortality from chloroform to exceed that from ether. Statistics of this country are somewhat difficult to obtain, but those which can be found show a decided mortality from chloroform and less from ether.¹⁵

Abbe²⁵ in 1895 stated that in his experience, kidney and lung complications following ether are usually due to other causes than the ether and in children he invariably used ether.

About one year ago Wyeth¹⁶ gave as his experience, that in children under twelve, ether was far preferable to chloroform. About this time Hinkel¹⁷ and Halstead¹⁸ reported their observations in children with the lymphatic diathesis, and advised the use of ether in this condition.

In brief review of the few points of the physiological action of these four anesthetics, it would seem that ether is the safest anesthetic in general surgery. Exact records in regard to anesthetics administered to children are hard to obtain, and we only have the statistics as a whole to aid us. Our consideration, then, is to choose some anesthetic which, from its physiological action, is least dangerous, and which in every way is easy in administering and reliable in its effects. We know chloroform is many times more powerful in its depressing action on the heart than ether, therefore, why use it? In children with the lymphatic diathesis it is, without doubt, dangerous.

Edmond Owen¹⁹ states that it is sad to have to admit that fatal accidents in connection with the administration of chloroform, even in the case of children, are occurring with increasing frequency. He further states that there is always risk in giving chloroform or any other anesthetic to a child. In this same paper he reports two deaths from chloroform. One in a child operated on for harelip; the other for post-nasal growth, neither

of these two cases occurring in his practice, however. The use of ether in throat and mouth operations is often objected to on account of the irritation produced, but if a small amount of atropin precede the ether and the ether given properly, but little need be feared from these secretions.

In pulmonary troubles there is reason for giving chloroform, but if serious cardiac weakness is also present, it would seem to me that ether with oxygen or preceded by nitrous oxide gas would be better.

In regard to heart disease, the recent paper of Finney, of Johns Hopkins²⁰ proves very instructive. I cannot do better than quote from this able article. "As a rule, in all cases of weak heart from whatever cause, chloroform is the most dangerous. It is more dangerous too in very nervous, apprehensive patients, in kidney diseases, and the like, while ether in acute lung affections and alcoholics is more dangerous probably than chloroform."

His report of 142 cases is very interesting. It would seem, then, that the all important point is the condition of the heart muscle, and not so much the nature of the valvular lesion.

I cannot refrain from quoting the closing passages of this article:

I cannot emphasise too strongly my conviction that in severe operations the anesthetist plays a most important, and in some cases a more important rôle than the operator, and one of the reforms most urgently needed in the medical profession of our country today is a thoroughly competent corps of anesthetists in our hospitals and in our medical schools, and a thorough and complete course of instruction in the proper methods of administration and use of these agents so powerful for good when rightfully used, and so useful for relief in suffering humanity and yet capable of producing such disastrous results.

Stengel²¹ states that "in myocardial diseases under ether anesthesia, these patients show an improved cardiac condition. Myocarditis is the condition which the surgeon has reason to fear."²² Hare²³ considers ether by far the safest anesthetic, if properly administered, excepting in vascular diseases. He gives its contraindications "high arterial tension, due to vascular change and grave vascular disease." But he prefers ether in Bright's disease, if proper precautions are taken. Atropin he considers of great value in these conditions and should always be used. These reforms hold true for children as well as adults.

In regard to the action of ether on the air-passages, Holscher, of Kiel,²⁴ gives the result of his studies as follows: (1) Aside from slight increase of mucous secretions, ether vapor has no other irritant action on the tracheo-bronchial mucous membrane; (2) that the tracheal gargle of ether narcosis is a result of the aspiration of the mouth secretions, and can be avoided by proper technique: Attention to the face, exit of the mouth secretions by lowering and turning of the head and elevating or separating of the angle of the lips. Attention to the maintenance of free respiration by holding the lower jaw forward and preventing the tongue from falling back into the tracheal space; (3) the affection of the air-passages following ether narcosis are usually the result of the aspiration of infected mouth contents; (4) the glistening appearance of the bronchial and tracheal epithelium is not altered during narcosis; (5) the increased salivary secretions during ether narcosis, although chiefly due to the narcosis are not entirely the result of local irritation of the ether vapors; more often there is also a central action.

In a series of experiments on animals Thompson and Kemp²⁸ show that ether causes some damage to the kidneys, and they believe it to be contraindicated in renal disease. However the general result of experiments showing the effect of ether on the kidneys of man and animals proves the damage much less than formerly supposed.

Ogden²⁶ reports a series of observations and remarks that the urine of children did not show evidence of any more marked renal disturbance from ether than that of adults.

Weir²⁷ believes ether safer when the kidneys are even slightly affected. His conclusions are as follows: (1) Ether narcosis produces no perceptible effect on the healthy kidneys in man or animals; (2) it is not dangerous in healthy, nor when the kidneys are only slightly diseased; (3) any effects it may produce on the kidneys are only transient.

In the foregoing lines the attempt has been made to show that ether can be used as an anesthetic for children and that the results of the investigations today show it can be used more and with greater safety than other anesthetics.

The combination of ether and oxygen²⁹ or ether and gas³⁰ are no doubt of great aid, but ether alone, properly given has few contraindications.

So many articles have been published in regard to proper administration of ether that it seems useless to discuss it here,

but the tendency is toward improved methods of administration of anesthetics and the thrusting of these important agents into skilled hands.

1. Dennis's System of Surgery, Vol. I., p. 652.
2. " " " " I., p. 652.
3. " " " " I., p. 650.
4. H. A. Hare. Therapeutic Gazette, February, 1897.
5. Sajous's Annual and Analytical Cyclopedia, Vol. II., p. 151, 152.
6. H. C. Wood. Therapeutics, p. 140, 141.
Hare. Practical Therapeutics, p. 161.
White-Wilcox, p. 241.
7. Sajous's Annual and Analytical Cyclopedia, Vol. II., p. 2.
8. " " " " " II., p. 2.
9. " " " " " II., p. 2.
10. " " " " " V., p. 210.
11. H. C. Wood. Dennis's System of Surgery, Vol. I., p. 646.
12. " " " " " I., p. 646.
13. Sajous's Annual and Analytical Cyclopedia, Vol. III., p. 214.
14. " " " " " III., p. 206.
15. " " " " " III., p. 206.
16. Wyeth. Medical Record, March 10, 1900.
17. Halsted. Philadelphia Medical Journal, November 3, 1900.
18. Hinkel. New York Medical Journal, October 29, 1895.
19. Owen. Archives of Pediatrics, March, 1895.
20. Finney. American Journal of Medical Sciences, August, 1901.
21. Stengel. " " " " " "
22. Mayo. " " " " " "
23. Hare. " " " " " "
24. Holscher. Medical Record, January 28, 1899.
25. Abbe. " " June 8, 1895.
26. Ogden. New York Medical Journal, July 25, 1897.
27. Weir. " " " " November 16, 1895.
28. Thompson and Kemp. Medical Record, September 3, 1898.
29. Cole. Medical Record, October 12, 1895.
30. Golden. Journal of the American Medical Association, December 15, 1900.

DISCUSSION.

Dr. A. L. BEAHAN, Canandaigua.—I think Dr. Wynkoop has written a very fair paper in regard to the question of the use of our common anesthetics, especially ether and chloroform. There is one point that occurs to me and that is, when we are speaking of the dangers of anesthesia we are always directing our attention to the condition of the kidneys. If we had a preliminary examination of the kidneys, in a large number of cases we would find disease. This is always fair in a discussion of the question of the use of ether as an anesthetic, and it being our American anesthetic we should be loyal to it and not discard it because of the reputation it has in its effect upon the kidneys; whereas anyone can give chloroform, it is an easy anesthetic to administer, but it is dangerous in the early stages of anesthesia, and it should be discarded because of that and should receive the disapproval of men working, especially in the larger operations. Of course, in the operations upon children it has its use.

Dr. S. L. SNOW, Syracuse.—I have listened with a good deal of interest to this paper, as the doctor tries to emphasize here

the importance of a still anesthetic. As I work more and more I am impressed with this fact, that we need a still anesthetic. As to one point he made in regard to bromide of ethyl I would take issue with him. He says that bromide of ethyl increases hemorrhage. That may be so in major operations, but in the short operations that are necessary in nose and throat work I find that it does not increase hemorrhage. There is much less hemorrhage in the use of bromide of ethyl than there is in ether. It is very common for me to be seriously interrupted when I use ether in the removal of adenoids by the flow of blood, and I find now that in using bromide of ethyl the flow of blood is insignificant, particularly if the patient is in the upright position. I suppose I am departing perhaps from the usual rule, but I often use bromide of ethyl for the removal of adenoids, and I feel quite safe in administering it in the upright position. Chloroform I always thought a little carefully about. The bromide of ethyl, I predict, is an anesthetic that will be very popular and come into common use with throat specialists. Dr. Morgenthau, of Chicago, I think, has collected 200 cases of his own. Dr. Dresden, of New York, recently read a paper before an association at New Haven. I think he has collected 500 cases where he has operated with no untoward results. Dr. Hollenbeck, of Chicago, has operated a great many times, one or two hundred; another specialist in St. Louis a large number, and we are getting reports in the journals right along of the men who are using bromide of ethyl for these operations, and they are all very favorable. I myself have used it more than fifty times, and each time with perfect success and with no untoward results. If you will allow me just a moment, I will say that the bromide of ethyl should always be procured in steel tubes. I use none but Merck's. I insist on those tubes coming to me in the original package, wrapped up, from the laboratory. I think that the drug is very unsafe if used from the bottle. I think it should be in hermetically sealed tubes, wrapped in blue paper. I have always insisted on this and I have never had any unpleasant results. It can be administered like ether. The patient breathes it one minute; that is my rule. Some of them go under within forty seconds. Adults, I often find, have to take it one minute and drop right off; go to sleep. I will tell you of an instance. Dr. Belknap happened in the operating room the other day in the Hospital of the Good Shepherd and he asked what anesthetic I was using. I said bromide of ethyl. He picked up the anesthetic and placed it to his nose, and then started to go to the window to show me his automobile. I looked around in a moment and saw him reaching for a chair. He had not breathed it more than fifteen seconds before he wanted to sit down. I have repeatedly removed tonsils and adenoids, the whole operation, from the beginning of the anesthetic to the end of the anesthetic, not taking more than two minutes. That is very rapid work, though; three minutes usually covers the time

the patient is under the anesthetic. When they come out from the influence of the anesthetic they have their faculties and they can spit out the blood. If I was going to have a patient under the anesthetic more than five minutes I should use ether, but in these slight operations, like removal of adenoids and tonsils, it is a very fine thing.

Dr. WM. B. JONES, Rochester.—I only heard a part of the paper, and that related to chloroform. First of all, the more dangerous anesthetic is the one which a person is not used to, unless the man using it is very skilled. Anyone who sees a great deal of anesthesia will say that the anesthesia occasions some little anxiety, and it is easy to vary a little the method of administration, or even the drug itself, to prevent symptoms of which there are warnings. These symptoms, in my experience, come oftener with ether than with chloroform. I have seen things which were attributed to anesthesia, when in fact the difficulty occurred before the administration of the anesthetic, or some time after its effect had passed away. One patient I saw died on the table before the anesthetic was given. As I read the reports of deaths from anesthetics, the deaths from anesthesia in nearly every case are considered to be those which occur upon the table, and although the after-effect of the anesthetic is mentioned, yet I have never yet seen a tabulated report or any comparisons between the deaths from chloroform and those from ether which included those that were due to the after-effects. My own observation gives me a proportion of about five to one in favor of chloroform. I have never seen but one death from anesthetics in which there was not a warning, and a warning sufficient to enable an expert to prevent death; and therefore I firmly think that all the deaths reported from ether or chloroform, occurring within an hour from the end of the operation, that they are due to the physician's method of giving the anesthetic, or else to some exigency of the operation which made it necessary to give the anesthetic even after it was shown to be dangerous. The remarks upon bromide of ethyl were interesting, and if the doctor would say a word about his own impressions on the drug, I think it would be still more satisfactory.

Dr. SNOW.—I have an impression that is growing upon me that bromide of ethyl is far safer than other drugs, if it is used rightly and with the right kind of cone. I do not think it is safe to take it away from the face and reapply it again, and I do not think it is safe to use the drug after the bottle has been opened or the tube has been opened. I always take one tube and break it and put it into the cone, and the next time I use another tube, and I feel much less concern about these patients than I did when I was giving chloroform. I have used it now about two years, and I am much pleased with it. If I had a child of my own and it had to have the tonsils or adenoids removed, I should expect it to be comparatively safe, because

so far we have been unable to discover any particular change in the pulse, and the face is not flushed; the patients want to sit up, immediately when they awake, and you can wake them quickly, have their full faculties and they are able to sit up; they are perfectly strong, able to do anything. One little fellow was given a few whiffs of it and he dropped off to sleep so nicely that we thought he was all right, and I put the instrument in and he came out as quick as a flash. In that case we had to do our work very quickly. We did not hurt him any, though he woke up and began to struggle. We give them the anesthetic forty or fifty seconds and they are sound asleep, and you do the work quickly and say, "spit out the blood," and they wake up and spit it out. The patient is only under from a minute and a half to three minutes, and it seems to me that that is an element of safety.

Dr. WYNKOOP.--I wish to say a word in regard to the effect of ether upon the kidneys. I think that investigation along that line has shown that wherever there has been any abnormal effect upon the kidneys or upon any of the organs it is due to improper use of the ether, and in the use of the gas the results are much better. My paper was simply to call attention to the use of ether in children, and I believe we can use it a great deal more in children than we do. That was the object of the paper.

The Two Glass Test.

By J. HENRY DOWD, M. D., Buffalo, N. Y.

THE two glass test which is referred to in all works on genito-urinary diseases does not seem to be used to the extent it should, for the reason that its importance as a diagnostic agent is not well explained, neither is the reason given why opacity of the second denotes trouble in the posterior urethra, *i.e.*, behind the compressor muscle. Furthermore, the way in which this test is used by some has been so changed that one is apt to, in fact, cannot help but draw misleading deductions therefrom. That this procedure is very important when dealing with inflammations of the urinary organs cannot be denied, yet certain important points must always be kept in mind, chief among which is the fact that it takes at least two ounces of urine to thoroughly cleanse the anterior urethra of any debris that may have formed therein, and in the case of old inflammatory spots even this will not remove all indications of anterior involvement. With but few exceptions the two glass test can be relied upon to furnish positive information as to involvement of the anterior

urethra, posterior urethra, prostate, vesicles, bladder or kidneys. To thoroughly understand why such is possible, the physiology of urination must be understood.

In a perfectly normal condition and eliminating diuretics, changes in the weather, and the like, urine enters the bladder at an average rate of about two ounces every hour. When this viscus becomes filled to a certain extent the retaining power of the internal sphincter gives way and urine enters the posterior urethra, making this a portion of the urinary bladder, the neck. From much careful observation it may be safely stated that this phenomenon occurs on an average of from one and three-quarters to two hours after a previous thorough emptying. Posterior urethritis would not be so commonly diagnosticated as cystitis, providing this was kept in mind, for it must be remembered that excepting physiologically (vesiculitis and congestion of the urethro-vesicle opening in the female accompanied with nervousness) urination sensation in the presence of inflammation is produced by the irritating fluid coming in contact with the inflamed tissue.

The urethra (male) being divided into two parts by the compressor muscle, prevents secretion, which is formed in front from passing backward, and vice versa. It is thus seen that any secretion formed in the posterior urethra cannot pass forward, but as soon as the internal sphincter relaxes, allowing the urine to enter, this (secretion therein) will intermingle and pass backward to become thoroughly mixed with the urine in the bladder. There are exceptions to this rule. Providing the inflammatory action in the posterior urethra is not sufficiently active to produce pus or other debris in sufficient quantities to become detached from the surrounding membrane, it adheres to the same and is washed out by the first gush which also clears the anterior urethra and we find that the second glass may be perfectly clear to the eye. Where the two glass test is expected to give any positive results, two glasses must be used and not one, as is frequently the case, for it is utterly impossible to form any opinion where a patient is allowed to pass a portion of his urine in a glass, and after visual examination, is allowed to pass the second portion in the same receptacle. The progress of inflammation of the urethra, and, for that matter, the whole urinary tract can be more easily studied by the naked eye than by the microscope. In the case of urethritis, where both anterior and posterior urethræ are involved to any extent both glasses will

show an opacity in degree according to the amount of trouble present. This can be easily verified by watching the changes taking place in the urine from the onset of an acute specific involvement. As resolution progresses and providing irritation is avoided, it will be noticed that opacity becomes less marked until the first glass will show only debris floating in an almost clear fluid, and the second clear, excepting in certain cases where small comma-like plugs may be seen. Such a condition indicates slight general inflammation of the anterior urethra, being more chronic at certain spots, with very little or no trouble in the posterior urethra, excepting in the presence of plugs which indicate involvement of the prostatic sinuses. Excepting in a very few instances, with the exception of shreds, the same general rule can apply to inflammations of the whole urinary tract.

Part Involved.	First Glass.	Second Glass.
Ant. urethritis, acute ; p. u. not involved.	Opaque.	Clear.
P. u. slightly involved.	Opaque.	Clear, or only slight opacity.
P. u. markedly involved.	Opaque.	Opaque, less than first, possibly some blood.
P. u. more marked than anterior.	Opaque, possibly shreds.	Same opacity, no shreds.
P. urethritis. Ant u. nearly normal.	Opaque, possibly prost. plugs and a few shreds.	Opaque, with more comma-like plugs.
Antro-posterior urethritis, prostate involved.	Opaque, some shreds and comma-like plugs.	Opaque, more comma-like plugs than in first.
Antro-posterior urethritis with vesiculitis.	Opaque, shreds or no.	Opaque, but more so than first, pus may drop from meatus at end of urination.
Antro-posterior urethritis with prostatic abscess.	Opaque, shreds or no.	Same opacity, or may be more marked than first. Free pus may appear at meatus.
Stricture with antro-posterior urethritis and involvement of prostatic sinuses.	Slight opacity with comma-like plugs and well-marked shreds of firm consistency.	Almost clear, except comma-like plugs.
Acute cystitis, non-tubercular, urethra not involved.	Opaque, no shreds.	Same opacity, often bloody to a marked degree.
Chronic cystitis, non-tubercular, urethra not involved.	Opacity resembling hard cider ; urine on standing adheres to bottom of glass in compact mass.	Same opacity, occasionally more marked than first.

Part Involved.	First Glass.	Second Glass.
Tubercular cysto-pyelitis.	Opacity of dirty greenish hue; if much blood present, assumes a dirty red; shreds are often seen.	Same.
Pyelitis, no urethritis, slight cystitis.	Opaque in degree as to pathological condition present; pus will adhere to bottom of glass on standing; may be of a greenish oily hue.	Same opacity, same phenomena.
All inflammation or new tissue formation in urethra absent.	Clear, excepting possibly phosphates, spermatozoa, bacteria, urates, etc., and after passage of sound washings are free of bloody strings.	Same as first.

378 FRANKLIN STREET.

Hospitals in the Smaller Towns.¹

By A. L. BEAHAN, M. D., Canandaigua, N. Y.

HOSPITALS where the sick may be cared for are a necessity. In the larger centers of human activity their usefulness has so long been accepted that it would be idle to demonstrate any reason for their establishment. The hospital principle may be embodied in a study of any hospital proposition, whatever the scope of its work. A recent writer states that hospitals in the smaller cities and towns deserve to rank alongside the discovery of anesthetics, as among the most important advancements of medicine and surgery of the past century. No philanthropy nor charity appeals so strongly to our nature as placing within easy reach the means of relieving the sick and wounded sufferers of each and every community. It is an important subject, how to develop the hospitals and adjust them to the needs of smaller communities than those in which they have been established. Should the plan be that of the benevolent and charitable institutions and incorporation be sought under the New York State law now in vogue over half a century, or should some modification of this valuable old working model be adopted? What machinery is required to render available a hospital suited to the needs of

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

other communities than those now served, in order to extend the work and service in the interests of the individuals to be reached and benefited? The community embraced in the section to reap the reward, and the workers to be fitly recompensed? The private hospital with personal supervision and individual administration has its advantages in direct responsibility, grasp of situation and quick correction of errors.

These hospitals are often the outgrowth of an individual's desire to do better work and are frequently established after experience of service in a public charitable institution. The discussion of preferences between a public and private hospital service for the sick and injured, demands a careful consideration of expediency and adaptability as well as what constitutes high class service and promises ideal results.

A feasible plan for the lesser population of urban communities to meet the needs of all classes would not fit the requirements of a greater population. The different types of patients require different methods of care, but the aim should be to secure equally good results, or else any and all plans and methods of practice are not worthy our emulation or esteem. The work of no hospital should stand unrebuked or unchallenged whose results and whose care of patients can be justly criticised. A standing menace and a disgraceful assumption exist in the classification of patients. Wards should be abolished. Rooms that communicate, with doors between, that nurses may occupy adjoining rooms, and isolation or free ventilation secured, as the case may require, are best. No one patient cared for in an institution is of better clay than another. Wards weaken and make slattern nurses. No nurse should know the price paid by a patient. No room should have a tab with price mark attached. Severe cases should have the best rooms. The less furniture and the best kind for the purposes, gives the cleanest rooms and the most comfortable quarters. The floor should be of hard wood, well seasoned and covered with thin dressings that water and soap if necessary can be used in cleaning and they should be bare and redressed very frequently, making as pleasing an appearance as any fabric can give, and the safest sick-room floor known. The walls should be painted with a washable mixture, and our own preference after a body coat of white lead and oil, is white zinc and turpentine, which makes a clean appearance, is capable of withstanding hardships of cleaning, shows when soiled, and can be reapplied quickly when sepsis has occurred in the room or on that floor.

It is a dull finish and does not tire the eyes. Woodwork and doors are to be of natural wood filled and varnished and revarnished or washed with turpentine and water as often as required.

No drains in the building proper, these being placed with closets and baths; laundry and kitchen in an annex will give an aseptic place for hospital work and if the ground for the building has been properly selected regarding soil and surroundings, we have perfect situation, proper complements and may expect good results. Remodeling of old buildings is not a consistent course. The building should have a southern or eastern exposure in our country, have no filling under or about it and should not be placed among trees whose soil has not been stirred to rid it of the humus and natural noxious principles common to such soil. It should be centrally located in a town, so that during convalescence the activities of the place may give stimulating diversion rather than lonesome isolation and depression. In the work with which I am affiliated, The Beahan Hospital of Canandaigua, N.Y., the village comprises 6,000 inhabitants with contiguous territory of as many additional people. The hospital is incorporated by eight physicians, representing the legally qualified physicians of all the various practices. Each physician and surgeon has control of his own separate work and interests without hindrance. They together constitute its directors and manage its interests. It is a business corporation. It conserves all the interests of local hospital demands without weakening the pecuniary rewards of its members and stands ready with open overtures to care for the indigent and needy as occasion demands when voiced by the charitable instincts and philanthropic purposes of citizens, whose sentiment and hearty coöperation is elicited and encouraged. The project does not interfere with associations whose functions shall be the care of the sick and afflicted poor, but will lead to the formation of such auxiliary bodies.

This result obtains in our town because of advanced and fortunate professional conditions. The new era of medicine, where the best energies of medical and surgical work are directed to the legitimate and scientific study of disease and its remedy, rather than to spend and be spent in professional bickerings and unseemly jangles, arraying communities for or against their medical purveyors, and factions of patrons against each other to the detriment of every one concerned and all their community

of interests. No other profession has had such cruel jealousies and such costly strifes. These differences are being abandoned and must be to make the plan of hospital outlined a success.

Not more important that this should be accomplished because of a need of harmony and united effort in the profession, but the community must be taught that esteem for their own physician is best shown by a toleration and respect for other workers in the same profession. To know what it means, and what it costs to develop a hospital work in a smaller town where a surgical center is of necessity to be newly established, reminds one of McDowell's first ovariectomy at Danville, Ky., a town then of only 400 inhabitants. But he did credit to his Virginian teacher and stood ready to face the consequences even of a mob if the operation on Mrs. Crawford proved disastrous. The gratification of better work amply repays for all sacrifices. In our town for the past year no death has occurred from or following a surgical operation in the hospital, nor within ten miles or over a territory of twenty miles square. It may have been a coincidence, it may be a fact that surgical cases met and embraced an opportunity for earlier intervention and better results.

Within the hospital for the last eighteen months section incisions and suture punctures have healed without a drop of pus, even with gauze drains. Hence it is possible that country surroundings contribute to ideal surgery. Establishing new centers for hospital work carries with them the corresponding elevation of standards of nursing and we hope for a class of graduates that will succeed to the places now occupied by the self-asserted nurse of necessity whose unselfish work may be praised, but whose efficiency is below our needs. The difficulty and danger of removing patients to distant cities may be noted, but the procrastination indulged in by the patients invites fatal results and it is probable that the larger centers will reap a benefit in better percentage of recoveries, while the larger experiences of workers in the greater centers of medical and surgical thought will always secure their full share of cases.

The dissemination of hospitals should advance the whole interest of the profession by placing within easy reach of the people a clean, inviting place, where the best care and safest methods constantly checked and corrected may be employed to meet the exigency and direct measures for relief and restoration to health. A large or complex board of managers, comprising persons unacquainted with the problem as a life work, or an

establishment with supernumerary assistants to sit on high stools or dawdle away their time, demoralising the work and increasing the cost without bettering returns or records. An organisation with misguided charitable plans that weaken the moral fiber of the indigent or bid for volunteers to fill the beds and but little question of finances asked. A staff of servants who believe themselves dictators, who pull wires to keep themselves in place and corral and control and continue after the hospital interim to care, are all nuisances. Direct work with the least machinery possible in management and work, with personal responsibility in every measure or department with the same high nerve tension of the physician and surgeon, who watches the patient seriously disabled or ill, should permeate the hospital with intense purpose and make it a delicate responsive barometer, whose readings will be met.

The hospitals organised under charitable methods have been ably criticised by Hartwig in his recent retiring address as president of the Buffalo Academy of Medicine. The physician, he says, is imposed upon by this form of hospital. He is a tool, not a manager. He must please the board of control. Free beds are occupied by patients who are able to pay or who are placed there by the influence of large corporations to be paid for by the public. The physicians best appreciate hospital work. Band them together, make their hospitals their centers of professional interests. Their habits of rivalry may be trusted to correct the mistakes of one another.

It does not matter who owns the building or plant. The success of the plant is as dependent on the lesser as the greater stockholder, because in the smaller towns there will never be enough work that a source of material can be alienated with profit to the work and in larger centers, let the physicians' private hospitals conducted on business lines so multiply that their size may not hamper the individual, personal direction of the enterprise.

THE University of Bellevue Hospital Medical College has a new x-ray laboratory which is probably the most complete and practical installation of its kind in this country. It was given to the college as a memorial of the late Edward V. Gibbs, and the donors have provided not only for installing and operating it, but also for keeping it supplied with all the new and improved apparatus that may appear with the development of the science.

— *Medical Age*.

The Therapeutic Value of the X-ray in Lupus Vulgaris.¹

By CLARENCE A. GREENLEAF, M. D., Rochester, N. Y.

DURING December of the year 1895, Prof. Röntgen announced the discovery of the *x*-ray. This year, 1901, Dr. Niels Finsen, of Copenhagen, was awarded one of the Noble prizes for his discovery of the light treatment for lupus, this being one of five prizes awarded annually to those who have done the most "for the benefit of humanity" during the year.

Tuberculosis, in its different manifestations, has always been a dreaded disease and generally considered incurable, and tuberculosis of the skin (*lupus vulgaris*) treated either medically or surgically, is one of the most difficult conditions we have to contend with.

During the past two years I have used the *x*-ray treatment for *lupus vulgaris* and report in detail the following four cases:

Case I. —Referred by Dr. Richard Moore, of Rochester, N. Y., July 1, 1900. L. M., female; aged 19. Born in Ireland. Came to the United States during June, 1899. Father, mother, three brothers and three sisters healthy. One cousin died of epithelioma of the lip. The patient states that when she was seven years of age she fell, injuring her upper lip and that the gum was sore for some time. About two years ago her nose began to bleed occasionally and was sore. Under the advice of a physician the part was poulticed with no beneficial result. She then consulted another physician, who cauterised the infected lip and nose, as she states, about two hundred times. The nose kept getting worse, bled more freely and the nostrils were finally occluded. Just previous to coming to America she entered a hospital in Dublin where the nose and upper lip were thoroughly curetted. After coming to this country she had no medical attendance until six months ago. During the interval the nose gradually became worse. During the past six months Dr. Moore has curetted five times with little improvement.

Examination, July 1, 1900, revealed an hypertrophy of the nose to about one-third more than its normal size, being of a dull reddish color. The skin was tense and doughy to the touch underneath, the entire tissue over the nasal bones being involved. Both nostrils were occluded, their mucous membranes discharging and hemorrhagic. The left ala of the nose was ulcerating for about one-half inch upon its outer surface. The mucous membranes and the ulcer bled at intervals and the patient suffered from headaches. The upper lip contained a few small nodules and cicatricial scars.

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

A mask of sheet lead, one-eighth inch in thickness, was made and an opening cut large enough for the nose and upper lip to be exposed. A low vacuum x-ray tube was placed ten inches distant from the skin surface and an exposure of fifteen minutes given. From this date, with the exception of two weeks, those of September 5, 1900, and October 1, 1900, until the middle of November, three such exposures were made weekly. After the third treatment the hemorrhages and headaches stopped, and November 15th the right nostril was free. The left nostril while free from discharge was still occluded. The ulcer was healed and the hypertrophy had steadily diminished. From November 15, 1900, to January 1, 1901, two treatments were given, the condition remaining about the same. During January, 1901, the patient received two treatments weekly with little improvement, the parts remaining in about the same state with an occasional nose bleed. One small surface continued hard, but there was no ulceration or inconvenience. The patient was then given a rest for ten weeks. Examination after this period revealed no change. Two treatments a week were given until June, 1901, these producing a slight improvement in the appearance. The occlusion of the right nostril was due to hypertrophy of the turbinated bones and I was undecided as to the safety of removal, fearing a latent process might be stirred up. However I advised their removal and this was done June 13, 1901, by Dr. J. M. Ingersoll, at the Rochester City Hospital. There was considerable hemorrhage, but this soon stopped and the wound healed quickly. Since then four treatments have been given. Both nostrils are now free, but the mucous membrane is slightly inflamed and there is a small area of hardness in the right ala of the nose.

Case II. Came to the Out-patient Department of the Rochester City Hospital, October 18, 1900:

S. K., female, aged 32; family history negative; husband tubercular. Always healthy previous to one year ago, when present trouble began. This patient had received no treatment. One year ago a single hard nodule appeared upon the left cheek. This increased in size and resulted in an ulcer about the size of a lead pencil. During the year she has had four ulcers, varying in size, all upon the right cheek. At present the patient has cicatricial scars at the site of the first ulcers, also a large reddish patch, about the size of a half dollar, which she states was the last to heal upon the right side. Upon the left cheek are two open ulcers, about the size of ten and five-cent pieces respectively, the one upon the side of the nose, the other upon the cheek. These are nearly confluent and the surrounding zone of skin is red in color. Both ulcers are open with no crusting, being typical lupus ulcers.

The patient suffers no discomfort except a "drawing sensation." A lead mask was made conforming the openings to the size of the ulcers and the same methods employed as in Case I.

with the exception that in this case a higher vacuum tube was used. The first treatment was given October 12, 1900, and I did not see the patient again until November 5, 1900. The smaller patch on the left side was at this time crusted over. Upon the right side, just above one of the old scars a small nodule was present. This was hard and felt like a kernel of corn under the skin. This the patient stated, was the way all the ulcers started. An exposure was made at this time. The next exposure was made November 12, 1900. No change was apparent in the nodule, except that it was softer in feeling. November 14, 1900, the patient came to the office to be photographed and the nodule had entirely disappeared, leaving the skin in a normal condition. From this time until the middle of December, 1900, nine treatments were given. The patient was discharged December 15, 1900, the lupus patches entirely healed and the evidence of normal skin unquestionable. I saw this patient about four weeks later and the skin, with the exception of the irregular cicatrix was soft and normal.

Case III. Referred by Dr. William L. Conklin, of Rochester, N.Y., March 20, 1901:

Mrs. S., age 52; born in the United States; family history, tubercular. Mother died of consumption. One sister suffering from pulmonary tuberculosis at present. The patient states that in 1895 a hard lump appeared upon the inner side of the right thigh, resulting in an ulcer which remained open for four months. A few weeks later a similar condition occurred upon the outer side of the thigh. Carbolic solutions and iodine ointment were used, followed by milder ointments. From the outer side of the thigh the trouble passed down the limb to the outside of the knee. As soon as this closed it broke out over the kneecap. This occurred in the fall of 1897. This ulcer continued more or less active until last spring, when it closed for about five weeks and then reopened. The condition had spread down to the front part of the leg, about eight months before and this had continued open to the present time. The patient was treated at the Homeopathic Hospital for fourteen weeks, the ulcers being repeatedly cauterised with no improvement.

The limb shows cicatricial scars at the site of the two ulcers upon the outer and inner sides of the thigh. This same condition is present in the cicatrix outside of the knee. Directly over the anterior surface of the knee is a large ulcer three and one quarter by three and one half inches in diameter. Its edges suppurating and its center more or less hemorrhagic. Three and one quarter inches below this ulcer, upon the anterior surface of the leg, was another ulcer two by three and one-quarter inches in diameter. The center of this was deep, not only involving the skin, but the subcutaneous tissue.

I advised daily treatment for a time and the patient entered the Rochester City Hospital, March 23, 1901. The ulcers were exposed to the x-ray daily for two weeks. The patient then left

the hospital and came to the office three times a week for treatment. This continued without intermission for six weeks. Since then she has had an occasional treatment. After the fifth treatment the knee ulcer crusted over and remained so, except when the removal of the dressing tore it open. Occasionally a slight discharge occurred from near the edge. The lower ulcer improved in appearance and contracted some, but was discharging still when the last treatment was given July 2, 1901.

I received no report from Mrs. B. during July and August, and called at her home August 24, 1901. She had been unable to leave her house since July 1, because at that time she had contracted a severe cold, which had affected her entire system. Severe pain in her leg had been relieved by poulticing, which softened the crusts, so that the ulcers were again open. Antiseptic washes had been used and the ulcers appeared more healthy. The upper ulcer had contracted slightly and the subcutaneous tissue of the lower ulcer had entirely filled in so that it was superficial.

Case IV. — Referred by Dr. E. Wood Ruggles, of Rochester, N.Y., August 6, 1901:

M. M., female; aged 24. Born in the United States of German parentage. No tubercular history can be obtained. About five years ago a small lump appeared upon the right arm which resulted in an ulcer. This healed with simple treatment. The cicatrix is about one by three inches in diameter. The patient states that about three years ago a small sore appeared upon the chin. This increased in size rapidly. About three weeks later a similar condition appeared upon the left cheek in front of the ear. The edges of this were cauterised three times and it healed promptly. The patch upon the chin received the same treatment and this has been continued for the past two years, but it has gradually spread until it now involves the entire chin and lower lip. It presents one large inflamed surface with several active nodules, the lip and its adjacent surface being ulcerating and painful. Treatments have been given three times a week. After the second treatment the exudate stopped in the upper part of the ulcer and crusting rapidly followed, the ulcer assuming a more healthy condition.

The benefit derived from the study of a series of cases determines the value of the treatment used. The importance of a prognosis in any case is manifest, and when a patient suffering from lupus desires to know what hope there is for ultimate recovery, it is our duty to inform this patient what we can do to relieve the condition. We have in this series, one case of direct tubercular infection, viz.: from the husband to the wife; another, a case of general systemic tubercular infection in which the lupus is prominent and two cases in which we are unable to

trace the source. In three cases all known treatment, with the exception of complete excision, the light treatment and the *x*-ray treatment had been used. Excision seems out of the question when we consider the areas involved.

Dr. Finsen in his employment of the light treatment exposes the infected skin to a concentrated light derived from powerful arc lights or sunlight. He gives daily treatments of one hour duration. With the advantages he has in his large institute such methods are feasible. However, by the employment of the *x*-ray treatment, we have at our disposal an apparatus easily obtained. The patients are subjected to fifteen minutes treatments only, surely an advantage over hour sittings, and the results so far are as satisfactory as from the action of the *x*-ray.

Now in regard to the effect of the *x*-ray treatment upon these cases: The action of the light was the same in each case, viz., an immediate crusting over of the infected surface, a "drying up" so to speak. This was accompanied by the alleviation of other symptoms. The case which had received no previous treatment rapidly recovered, and in this patient the light had a remarkable effect upon a tubercular node, rendering it inert. The case which had received active treatment for so long a time improved rapidly, and while we cannot consider the patient completely recovered, however the symptoms are alleviated and the infected parts have assumed a normal appearance. I do not consider the third case indicative of failure in the treatment of these cases, because a more general element entered into the case, viz.: that of reinfection from the patient's systemic condition. The last case was included to show that so far in the treatment the same conditions of repair exist as occurred in the other cases.

From the observation of these cases, I wish to offer the following points: (1) That the most satisfactory treatment for lupus vulgaris is the *x*-ray treatment; (2) that repair begins almost immediately; (3) that the danger attending the treatment is minimum; (4) that the surroundings and general condition of the patient are an important element in the ultimate result; (5) that cases which have not been subjected to surgical treatment react rapidly and ultimately recover, whereas cases which have received surgical treatment react in a degree of slowness dependent upon the extent of previous surgical interference.

THE Philippine Commission has authorised the establishment of a government biological and chemical laboratory at Manila.

CLINICAL REPORT.

A Case of Obstinate Hiccough and its Successful Treatment.

By J. A. DURRENT, M. D., Marysville, Wash.

ON MAY 16, I was called to see Mr. S., aged 41, married, the father of three healthy children, whose family history was negative.

As to his manner of life, habits, and the like, nothing was elicited except that he had very peculiar ideas about his diet. Some very wholesome and easily digested foods he would not use, while he was fond of others that are very hard to digest. Two years previous to this attack the patient had a similar experience with hiccough that lasted three days. During that attack the hiccough was not severe, and did not prevent him from following his usual occupation, beyond the embarrassment that it caused. I found that his stomach had given rise to some trouble for years. Very little definite data could be obtained on this point, but the symptoms suggested chronic gastritis. The patient always had an abnormal craving for sodium chloride. For the last two years he had not complained very much of his stomach.

At the time I was called the man was suffering from pain in his back and lower extremities, and a headache of moderate severity. His tongue was slightly coated and his temperature was 101.8°. The pulse was good and a little above normal. I put him upon a liquid diet and ordered him to remain in bed, besides prescribing calomel, phenacetin and Dover's powder.

The next day all the symptoms had abated and the patient was feeling quite comfortable, although he had commenced to hiccough occasionally during the day. At this time the hiccough could be stopped by simple means, such as traction upon the tongue.

The following day, May 18, the hiccough had become worse and began to alarm the family. Small doses of calomel were given without any result. Amyl nitrite only stopped it for a few minutes and finally neither it nor nitroglycerin were of any benefit. By Sunday the attacks had become so severe that they continued steadily all day, unless relieved by partial anesthesia. The hiccough was so violent that the bed would shake with the movement. During the day, I used large doses of chloral and potassium bromide, per rectum, and atropin and morphia hypodermically. Even when the patient was completely under the influence of these drugs it would be necessary occasionally to administer chloroform to stop the hiccoughs. Finally, they became so persistent as to occur when the patient was totally unconscious.

Monday morning I washed out the patient's stomach quite thoroughly, affording relief for an hour. This operation was repeated daily for three days. At this stage I called in two consulting physicians, but neither of them suggested a different course of treatment. However, on Monday afternoon and Tuesday, I persevered with traction on the tongue; I observed also that pressure on the hyoid bone would at times stop the hiccup.

On Wednesday, about noon, I telephoned Dr. Howard, asking him if he could suggest any other remedy that might prove helpful. He replied that I might give chloretone a trial, which I did. On Wednesday afternoon, I prescribed twenty grains of chloretone, the dose to be repeated every three hours until two drachms had been taken. As a result the hiccup stopped for intervals of two and three hours, during Wednesday evening, and by Thursday morning when anesthesia was complete it had ceased entirely, and has never returned except once about a week later; it lasted then for only a few minutes and stopped without treatment.

The patient remained in a comatose condition until Sunday, the 26th, when he became partly conscious; on Monday his mind was clear at intervals and by Tuesday he had recovered complete consciousness. During this comatose condition feces and urine passed involuntarily, and the patient was fed on milk, with eggs, by means of a stomach tube. The pulse at first ranged from 110 to 120, and was quite weak, although regular. The respirations ranged from 40 to 50, and the temperature from 101° in the morning to 103° in the evening. By Sunday, May 19, the pulse rate had fallen to 100 and there was much improvement in its quality. The fever was less and by the middle of the week the temperature was normal, while the respirations had dropped to 35. During this time the medicinal treatment consisted of digitalis, whiskey and strychnin.

From this time on recovery was uneventful. The man has complained of nothing, except two blisters that were placed on his abdomen in the hope of doing some good, and a swelling in his left calf, which has nearly disappeared.

In conclusion it might be of interest to name the various remedies and means that had been used to stop the hiccup; these were calomel, amyl nitrite, nitroglycerin, valerian, chloral, potassium bromide, atropin, morphin, chloroform, oil amber, hydrochloric acid, pepsin, cerium oxalate and bismuth. Also lavage, traction on the tongue, pressure on the base of the tongue, pressure over the phrenic nerve, holding of the hyoid bone, blisters over the exit of the lower four cervical nerves, blisters on the abdomen, and futile attempts to cause sneezing. In addition to these, pillows were placed under the patient's

back, so that he assumed the position of one in a state of opisthotonos.

An examination of the lungs, heart and urine gives us no light on the cause of the trouble in this case. The stomach washings at first were of an olive green color, but after the first day were very clear. I am still of the opinion that the hiccough was caused by some condition in the stomach, and feel that the anesthetic and hypnotic effect of the chloretone were instrumental in controlling the reflex action.

SOCIETY PROCEEDINGS.

Medical Association of Central New York.

REPORTED BY C. A. VAN DER BEEK, M. D., Rochester, N. Y., Secretary.

THE thirty-fourth annual meeting of the Medical Association of Central New York, was held at the lecture room of the Buffalo Society of Natural Sciences, at the Library Building, Buffalo, N. Y., on the 27th and 28th days of August, 1901.

Tuesday, August 27th, the meeting was called to order at 10.30 a.m. by the president, Dr. LUCIEN HOWE, of Buffalo, N. Y.

The Secretary, Dr. C. A. VAN DER BEEK, upon being called to read the minutes of the last meeting, moved that they be omitted, as has been done heretofore, for the reason that they have been published in the Transactions.

Motion seconded. Carried.

The President then announced the standing committees.

Business Committee.—L. W. Rose, Rochester, chairman; S. F. Snow and A. F. Vadeboncoeur, Syracuse.

Committee on Finance.—William C. Krauss, chairman; William C. Phelps, Roswell Park, DeLancey Rochester, Stephen Y. Howell, Francis E. Fronczak, H. D. Ingraham, Charles G. Stockton, Eugene A. Smith, Eli H. Long, James W. Putnam, and Lucien Howe, all of Buffalo.

Committee on Hotels.—Floyd S. Crego, chairman; Alvin A. Hubbell and W. Scott Renner, Buffalo.

Committee on Entertainment.—William C. Krauss, chairman; Eli H. Long and William Warren Potter, Buffalo.

Committee on Arrangements.—Francis F. Fronczak, chairman; Henry D. Ingraham, Julius Ullman and Lorenzo Burrows, Buffalo.

Committee on Credentials.—Floyd S. Crego, chairman; F. F. Dow, Rochester, and W. A. Howe, Phelps.

Publication Committee.—C. A. Greenleaf, Wm. M. Brown, Rochester, and William C. Krauss, Buffalo.

The following members and delegates registered:

Cayuga.

Horley, J. P.	Palmer, John O.	Slocum, George
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Chemung.

Case, G. W.	Fisher, J. C.	Fulton, Cyrel
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Chenango.

Andrews, L. C.

Cortland.

Higgins, F. W.	Kinyon, Benj.
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Erie.

Allen, Thos. G.	Grove, W. G.	McGuire, E. R.
Bartow, B.	Hauenstein, John	McGuire, Francis W.
Benedict, A. L.	Hinkel, F. W.	McMichael, Geo. H.
Brown, Geo. L.	Hopkins, H. R.	Mynter, Herman
Burrows, L., Jr.,	Howe, Lucien	Park, Roswell
Cohen, B.	Howell, S. Y.	Phelps, W. C.
Colton, A. J.	Hubbell, A. A.	Pohlman, Julius
Congdon, C. E.	Ingraham, H. D.	Putnam, J. W.
Cott, Geo. F.	Jones, A. A.	Renner, W. Scott
Crego, Floyd S.	Johnson, Ray H.	Rochester, DeLancey
Dunham, Sydney A.	Keiser, Max	Stockton, C. G.
Fowler, Joseph	Krauss, Wm. C.	Ullman, Julius
Frederick, C. C.	Long, E. H.	Wall, Chas. A.
Fronczak, Francis E.	Lynde, U. C.	Wende, G. W.
Grove, B. H.	Mann, M. D.	York, G. W.

Kings.

Hoag, David E.

Livingston.

Shanahan, W. T.

Madison.

Lum, W. T.

Monroe.

Allen, M. M.	Barron, W. M.	Brown, W. M.
Andrews, L. B.	Berkman, J. S.	Buck, Kathleen

Conklin, Wm. L.	Lane, Geo. A.	Sherman, James
Dow, F. F.	Maine, A. P.	Slayton, L. E.
Earl, Edgar H.	Potter, E. B.	Starr, Chas. S.
Elsner, Simon L.	Potter, Marion C.	Sullivan, J. H.
Greenleaf, C. A.	Rider, W.	Van der Beek, C. A.
Jones, William B.	Rockwell, C. S.	Weigel, L. A.

N. East, Pa.

Putnam, B. H.

Onondaga.

Baun, Henry C.	Hotaling, A. S.	Roberts, Charles S.
Bryan, Geo. J.	Kellogg, W. C.	Sears, D. W.
Coon, C. E.	Knowlton, F. P.	Slingerland, I. N.
Craton, S. B.	Larkin, S. E.	Slocum, F. W.
Easton, F. E.	Law, W. F.	Snow, S. F.
Gregg, Milton E.	Lewis, G. G.	Ten Eyck, P. Camp
Hadden, A. Whiting	Loveland, B. C.	Wallace, W. L.
Heffron, J. L.	Murray, D. H.	Wynkoop, E. J.

Ontario.

Allen, D.	Clapper, Wm. B.	Howe, W. A.
Beahan, A. L.	Jackson, C. O.	Wheeler, S. R.

Orleans.

Bamber, R. W.

Oswego.

McKnight, E. E.	Rainier, E.
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Schuyler.

Bennett, M. L.

Toronto, Ont.

Buck, Thos D.

Waterproof, La.

Andrews, D. Mark

Wayne.

Brandt, J. S.	Lapp, E. H.	Putnam, J. W.
Carmer, M. E.	Myers, J. F.	Veeder, M. A.

Yates.

Van Dyke, C. M.

The report of the treasurer, Dr. S. L. ELSNER, of Rochester was then read, and ordered printed. The report is as follows:

DR.

October 16, 1901.	To balance, cash on hand	\$124.30
	Receipts from dues	165.00
	Receipts from new members	50.00
		\$339.30

CR.

By disbursements, October 16, 1900, to August 26, 1901	\$173.55
By cash	165.75
	\$339.30

The president's address being in order, the first vice-president, Dr. A. L. BEAHAN, of Canandaigua, was called to the chair.

The frequency of asthenopia in America was the title of the address, and was printed on page 117 of the September journal.

The following papers were then read and discussed:

A plea for the broader treatment of epilepsy, Wm. P. Spratling, Sonyea.

Salt starvation in the bromide treatment of epilepsy, A. Pierce Clark, Sonyea.

Rheumatism, L. A. Weigel, Rochester.

Hospitals in the smaller towns, A. L. Beahan, Canandaigua.

The use of anesthetics in children, by E. J. Wynkoop, Syracuse.

The science of medicine and the healing art, John L. Heffron, Syracuse.

During the reading of the papers, the circulation of blood through a bullock's heart was demonstrated by Dr. Knowlton, of Syracuse University, in an adjoining room.

The society adjourned at 1 o'clock p.m. for luncheon, tendered by the Buffalo physicians at the Tift House.

In the evening, the Infant Incubator concession at the Pan-American Exposition tendered the association a special demonstration of their methods and life-saving inventions, which was much enjoyed and highly appreciated by all present. The members were then invited to a Mexican dinner at the "Streets of Mexico," and were there entertained by Wenona, the expert rifle shot of the Indian Congress. Appropriate remarks were made by several of the members, after which the members dispersed to enjoy the beauties of the exposition.

Second day, Wednesday, August 29, 1901.

The president called the meeting to order at 10.15 a.m.

At the request of the committee on entertainment, Mr. Frank C. Bostock, of the Trained Animal Concession, kindly consented to have Esau, the educated chimpanzee, appear at this session, and requested the members to make a careful comparative examination. Remarks were made by Drs. L. A. Weigel, Lucien Howe, W. A. Howe, Bernard Cohen, Wm. C. Krauss and others. A vote of thanks was tendered Mr. Bostock, Drs. Coney and Schenkein, of the Infant Incubators and to Mr. Cummins of the Indian Congress for courtesies shown the society.

The election of officers being in order, the society proceeded to ballot and elected the following: President, A. L. Beahan, Canandaigua; first-vice president, John L. Heffron, Syracuse; second vice-president, M. L. Bennett, Watkins; secretary, C. A. Greenleaf, Rochester; treasurer, Wm. M. Brown, Rochester.

The secretary read a communication asking the endorsement of this society for a physiological institution in Washington.

The President.—I have looked into this matter and am familiar with its endorsers. It has not seemed to me, at least, as a thing which we should sanction without some deliberation. If it is laid on the table for consideration another year, it strikes me that that would be a recognition of it, at the same time not committing ourselves. Is there any motion in regard to it in any way?

Dr. JOHN L. HEFFRON, Syracuse—I move that the communication be received.

Motion seconded and carried.

Dr. Heffron.—I move that it be laid on the table for further consideration.

Motion seconded and carried.

Dr. WM. C. KRAUSS, Buffalo.—At our last meeting an amendment to the Constitution was offered by Dr. E. B. Angell, of Monroe, chairman of the Committee on Revision of the Constitution, to the effect that hereafter we shall meet only in turn at Buffalo, Syracuse and Rochester. Dr. Angell being absent I therefore present that amendment to the Constitution at this time, and ask that it be voted upon. I move that hereafter this society shall meet annually in turn at Buffalo, Syracuse and Rochester, and at Auburn only on special occasions. Seconded. Carried.

Dr. JOHN L. HEFFRON.—The resolution which I now present I wish to have carefully considered by this body, and if it meets with approval, I should like to have it adopted:

Inasmuch as the present law regulating the practice of medicine in our state has been productive of great good to the people of the state by having developed a body of medical men, all of whom have shown proof that they are well grounded in the fundamental science of medicine, it is therefore desirable to correct such anomalies of the law as at present exist; therefore

Resolved, That the Medical Association of Central New York forward to the Committee on Legislation of the New York State Medical Society, through its secretary, the following memoranda for their careful consideration:

(1) By making the single individualised examination for candidates from the various medical schools recognised by the state one in materia medica and therapeutics only; (2) by adding an examination for all candidates in "internal medicine," exclusive of treatment, and with it associating "diagnosis;" (3) by making "pathology and bacteriology" a subject for examination by itself.

In addition it is suggested that the change of the term "the practice of medicine" to the "practice of the healing art" would enlarge the definition of the original term sufficiently to make it include all those who accept financial support from sick people, and would of necessity put all such under this one law requiring evidence of fitness before a license to practise is granted—a law which in our opinion the people of this state will never repeal.

Dr. Heffron moved the adoption of the resolution.

Motion seconded.

The President.—The resolution includes several recommendations. Shall we take them up separately, or as a whole?

Dr. Heffron.—The simple point about that is to arrange the examinations scientifically which are at the present time required by the state. Those familiar with the requirements of the state know they are physiology and hygiene, chemistry, pathology and diagnosis, anatomy, surgery, obstetrics and therapeutics, practice and materia medica. In other words, there is no place allotted for an examination in internal medicine. It is possible for a man to become a physician, according to the laws of the State of New York, without having shown any proof that he knows the natural history of disease.

Dr. W. A. HOWE, Ontario.—It seems to me that as a society we ought to adopt it and send it to the Committee on Laws of the State Society. I think that is the only course for us, and when the State society takes up the legislation, they consider it, and if

they think advisable they present it to our law makers. I would second the motion.

Dr. Heffron.—This is simply suggested to the legislative committee of our State Society, and a similar memorandum could be sent to the legislative committee of the Homeopathic Society and the Eclectic Society. My opinion is that if a memorandum to this effect should be sent to those other societies that they would all be united in the application for the examination as stated there.

The motion was put to a vote and carried.

Dr. A. L. BENEDICT.—I would follow out that suggestion of the introducer and move that a memorandum of this be sent to the secretary of the State Homeopathic Society and the State Eclectic Society, and to the Medical Association of the State of New York.

Motion seconded and carried.

The Committee on Credentials recommended that the following delegates be elected to permanent membership in the association. Carried.

E. E. McKnight, Oswego; John C. Fisher, Chemung; J. P. Horley, Cayuga; W. T. Lum, Madison; C. M. VanDyke, Yates; S. R. Wheeler, Wm. B. Clapper, Ontario; I. N. Slingerland, C. S. Roberts, Wm. F. Law, A. S. Hotaling, W. L. Wallace, Dwight H. Murray, A. E. Larkin, G. J. Bryan, Onondaga; J. T. Sherman, L. E. Slayton, Wm. M. Barron, F. B. Andrews, M. J. Whiteside, Monroe.

C. E. Congdon, A. J. Colton, Erie.

The reading of papers was resumed and the following speakers announced:

The therapeutic value of the *x*-ray, C. A. Greenleaf, Rochester.

Deafness from scarlet fever and other sources, S. F. Snow, Syracuse.

Once more: unrecognised glauconia—hopeless blindness, Wheelock Rider, Rochester.

Causes of death from strangulated hernia, William B. Jones, Rochester.

A case of specific intracranial lesion, involving the chiasm, causing somnolence, mental dulness and total blindness—hemipic recovery, with normal visual acuteness, B. C. Loveland and F. W. Marlow, Syracuse.

The mind from a medical point of view, M. A. Veeder, Lyons.

The following papers were read by title:

Disinfection, Geo. W. Goler, Rochester.

Modification of the operation for inguinal hernia, J. P. Creveling, Auburn.

The influence of diseased tonsils on the health and development of children, John O. Roe, Rochester.

Appendicitis, A. A. Young, Newark.

Poisonings from unexpected directions, Francis E. Fronczak, Buffalo.

Diagnosis of hip-joint injuries, J. H. Jewett, Canandaigua.

Treatment of typhoid fever, A. L. Hall, Fulton.

A vote of thanks was tendered the Buffalo Society of Natural Sciences for the use of the assembly room, and another to Dr. Knowlton and Mr. Steele, of Syracuse, for their kindness in demonstrating the cardiac circulation. After which the president declared the meeting adjourned, to meet at Syracuse, N. Y., the third Tuesday of October, 1902.

Buffalo Academy of Medicine. .

Regular Stated Meeting, September 3, 1901.

REPORTED BY F. W. MCGUIRE, M. D., Secretary.

THE regular stated meeting of the Buffalo Academy of Medicine was held at the Academy rooms, Public Library Building, Tuesday, September 3, 1901.

The president, Dr. CHARLES G. STOCKTON called the meeting to order at 9 p.m.

The minutes of the last quarterly meeting were read and approved.

The council recommended the election of Drs. Henry E. Stadlinger, Edwin A. Bowerman and Frederick C. Busch for resident membership. They were separately balloted for and elected Fellows of the Academy.

The report of the Hartwig prize committee was presented, which is as follows:

"At the beginning of his term of office as President of the Buffalo Academy of Medicine for 1900-1901, Dr. Marcell Hartwig offered a prize of \$50.00 for the best paper presented to the Academy by any one of the Fellows during his presidential term. The undersigned were appointed a committee to award the prize.

"Thirteen papers were presented to your committee. After careful examination and mature consideration the prize has been awarded to Dr. Irving Phillips Lyon for his paper entitled, Cancer distribution and statistics in Buffalo for the period 1880-1899, with reference to the parasitic theory."

Signed, J. W. GROSVENOR.
B. G. LONG.
S. Y. HOWELL.

On motion the report was received and filed and the committee discharged. Carried.

It was moved and seconded that the prize of \$50.00 be presented by the President, Dr. Charles G. Stockton, to Dr. Irving P. Lyon, at the next stated meeting of the Academy. Carried.

On motion by Dr. Wende that the next meeting of the pathological section, September 17, be held at the University of Buffalo. Carried.

The section of medicine provided the following program: Intestinal dysentery, J. C. Hemmeter, Baltimore; Treatment of pneumonia, DeLancey Rochester. Doctor Hemmeter's paper was discussed by Drs. Benedict, Jones, Hartwig, Jewett and Stockton. Dr. Rochester's paper was discussed by Drs. Jones, Ullman, Thoma and Benedict. See report of medical section.

On motion by Dr. Thoma, a vote of thanks was tendered to Dr. Hemmeter for his very able and interesting discourse.

Attendance, 30; adjourned at 11 p.m.

RYERSON'S SOLUTION.

R	Sodii bichlorate	grs. xxx.
	Sodii bicarb.	grs. xxx.
	Sodii chlorid	grs. xxx.
	Sodii salicylas	grs. x
	Listerine	℥i.
	Glycerinum pura	℥i.
	Aq. dist. q. s. ad.	℥viii.

This is an excellent combination for nasal cleansing and disinfection. It is soothing, agreeable and effective. For shortness I call it Ryerson's solution.

Extract from a medical article written by G. Sterling Ryerson, M. D., L. R. C. P. & S. etc., Toronto.

Special Contributions.

The Surgery in President McKinley's Case.

AN ACCOUNT OF THE OPERATION NARRATED BY ONE OF THE
SURGEONS WHO ASSISTED.

By JOHN PARMENTER, M. D., Buffalo, N. Y.,
Professor of anatomy and clinical surgery at the University of Buffalo.

PURSUANT to the request of the editor of the JOURNAL I herewith furnish such data as came within my knowledge in connection with the recent operation upon President McKinley, on September 6, 1901, at the Pan-American Hospital.

The President was shot about ten minutes after four o'clock, and various surgeons were summoned to the spot, I, myself, among the number. On my arrival at the hospital I found Doctors Mann, Mynter, Wasdin and Lee, the latter of St. Louis. I am informed that a consultation had been held, at which it was decided that the President should receive the same general line of treatment which would be indicated and carried out in the case of a person of much less exalted position. In other words, the personality of the patient was not to weigh in the scientific treatment of his case. I was invited by Dr. Mann to participate in the operation, which began as nearly as I can recollect about twenty minutes after five o'clock.

The wounds sustained by the President, as is already known, consisted, first, of an abrasion caused by a glancing ball located near the middle of the sternum and a little to the right. The second bullet entered the abdominal wall, some five or six inches below the left nipple and about two inches to the left of the median line. These figures are approximate but cannot vary much from the exact locations of the external wounds.

An incision was made by Dr. Mann in the long axis of the body some four or five inches in length, the incision dividing the

point of entrance of the bullet. On section of the muscles of the abdominal wall it was ascertained that a penetration of the abdominal cavity had occurred. The incision was then lengthened and an examination made of the viscera, when it was revealed that a bullet had entered the stomach an inch or more above the greater curvature, and probably about the middle of the long axis of that viscus. The wound of entrance showed somewhat ragged edges, and through the opening escaped considerable gas from the stomach, as well as a very small quantity of the stomach contents which was quickly caught up by compresses. This wound was carefully sutured by Dr. Mann. The stomach was then drawn farther out of the cavity, Dr. Mann reaching underneath the omentum to get at its posterior wall, where a wound corresponding to that in the anterior wall was found. This was somewhat larger and apparently more ragged than the first one described. It also was carefully sutured. Further search failed to reveal any other lesion in the abdominal cavity or any trace of the bullet. The operation had then lasted somewhat over an hour, and it was deemed inadvisable to prolong the search for the bullet, the belief being that it had passed into the muscles of the back and would there become encysted.

The abdominal cavity was thoroughly irrigated with salt solution two or three times during the operation. The abdominal wound next was sutured, silkworm-gut being used for the retaining sutures, these penetrating all the layers of the abdomen, after which antiseptic dressings were applied.

At the conclusion of the operation the President's pulse was 130, and of fairly good quality. He took the anesthetic throughout the operation without any unpleasant symptoms, due, undoubtedly in large part, to its skilful administration by Dr. Wasdin. Within half an hour the President was transferred in the ambulance to the home of Mr. Milburn.

As my experience with the case and relation to it ended with the President's removal from the hospital, I can give no further data.

Details of President McKinley's Case.

NARRATED BY THE RECORDER AT THE OPERATION.

By NELSON W. WILSON, M. D., Buffalo, N. Y.,
Sanitary Officer, Pan-American Exposition.

WILLIAM MCKINLEY, President of the United States, was shot while holding a public reception in the Temple of Music, at the Pan-American Exposition on Friday, September 6, 1901, at seven minutes after four o'clock. His assailant was Leon Czolgosz, a Pole, and an acknowledged anarchist and disciple of Emma Goldman, the most notorious "Red" in the United States.

For full seven days the President lingered, dying at fifteen minutes after two o'clock on the morning of Saturday, September 14, at the residence of Mr. John G. Milburn, to which he had been removed the day of the shooting.

When he was shot the President did not lose consciousness; he saw the crowd fling itself upon his assailant and bear him to the floor; he heard the angry cries for vengeance, and with all the infinite love for mankind and mercy for evil doers which ever characterised his life, this wounded man, grievously hurt as he was, stretched forth his hand as if in benediction and said: "Let no one harm him."

The ambulance clanged its way through the densely packed crowd and tenderly, reverently, the stricken President was lifted from the chair into which he had sunk and was placed on the stretcher. This was lifted into place and the crowd silently and with bared heads parted while the ambulance, surrounded by soldiers and police, whirled away to the hospital.

The dash to the hospital was thrilling and sensational. Mr. T. F. Ellis, who was driving the motor vehicle, handled the steering bar with the utmost skill; no chaffeur however skilful, however expert, ever drove an automobile with more speed and with more wisdom through dangerous places than did Ellis, who is a third-year medical student of the University of Buffalo. The crowd was dense all along the route to the hospital and yet,

although the machine was driven at top speed, there were no accidents. Inside the vehicle lay the Chief Magistrate of the United States, carefully attended by Dr. G. McK. Hall and Mr. E. C. Mann, the latter a senior medical student on the staff of the medical department of the Pan-American Hospital.

AT THE HOSPITAL.

Arriving at the hospital the President was taken to the operating room and placed on the table. The doctors of the staff undressed him and ministered to his personal comfort. A hypodermic of morphin was given and almost immediately the telephones began their jingling cry for help. Far and wide through the city went the calls for surgeons.

Dr. Roswell Park, medical director of the exposition, had gone to Niagara Falls to perform an operation. An effort was made to secure the services of Dr. Edward J. Meyer. He, too, was absent from the city. In the meantime Dr. M. D. Mann and Dr. John Parmenter had been sent for and found. Dr. Herman Mynter also was reached, and in a very short time word came that Dr. Park had been communicated with and was on his way from the Falls in a special train.

Dr. Lee, of St. Louis, who was on the grounds at the time of the shooting appeared early and voluntarily assumed charge of the medical department. He was relieved almost immediately by the resident staff. Miss A. M. Walters, superintendent of nurses, displayed excellent judgment in the disposition of the nurses and in the preparations which were immediately begun under her directions for the operation, which her wide experience told her would inevitably follow the arrival of the surgeons. Instruments were sterilised and dressings prepared and when at ten minutes after five Dr. Mann arrived, and with Drs. Mynter and Eugene Wasdin, surgeon of the Marine Hospital Service of the United States, who had reached the hospital a few minutes before, made an examination of the President and decided upon operation, he found everything ready for him. Dr. John Parmenter arrived five minutes later than Dr. Mann and went into consultation with the others.

A careful examination of the wounds showed that the first shot had struck near the middle of the sternum producing simply an abrasion. The second had penetrated the abdomen and was serious. The President's condition was one of shock. Mr. Milburn and the President's secretary, Mr. George B. Cortelyou, with Mr.



SHAKING HANDS WITH THE PRESIDENT.

Taken in the corridor of the Government Building at the Exposition, Sept. 5th.

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John N. Scatcherd were called in and informed that immediate operation was a necessity. They told Dr. Mann to do as his wisdom dictated and when the President was informed that an operation was imperative, he said simply: "Gentlemen, I am in your hands."

Again word came that Dr. Park was being rushed to Buffalo. He was on his way. Outside even in the crowd there was anxiety for the coming of the surgeon. On occasions like this a crowd is like a prairie, sun-dried to tinder; a spark of information flashes through it like the tongues of hungry flame. It seemed to one among this vast jam of human beings who were greedily lapping up every thought, every scrap of information from inside, every word, as if they were imbued with the desire to see Dr. Park come to the hospital. How great is a man in the esteem of strangers when, in their hour of anxiety and trouble, they turn to him as a pillar of strength and whisper of him among themselves.

Inside the hospital there was a noiseless bustling to and fro; outside, the waiting crowd, silent and hushed, crushed forward, but needed only a gesture from the police to fall back and sink their voices to whispers. Men with authority forced their way through the jam to the doors of the hospital where they stopped; it was not for them to enter where the forces of science were preparing to do battle with death.

The operating room doors were closed, with secret service agents on guard that none might enter; men who ride rough shod through an every-day life tip-toed their way about; men whose voices ring clear, spoke in hushed whispers with the clutch of sorrow at their throats, for behind those doors in the white room the President lay under the knife of the surgeon; the blood of the Republic was dripping and calm men were searching out the course of an anarchist's bullet, with deft fingers and acute minds.

THE OPERATION.

When the decision to operate immediately had been reached, Dr. Mann assigned their parts to his assistants. He requested Dr. Wasdin to administer the anesthetic, which was begun at twenty minutes after five o'clock, ether being used. Dr. Mynter stood opposite the operator with the Dr. Lee mentioned above; beside Dr. Mann stood Dr. Parmenter as adviser. Dr. Wilson was assigned to take the records of the operation and time. Mr.

Simpson was at the instrument tray; Mr. Mann at the sutures; Miss Catherine Simmons, of Roosevelt Hospital, New York, assisted the anesthetist; Miss M. C. Morris and Miss A. D. Barnes, of St. Luke's, New York, were the sterile nurses; Miss



WHERE THE PRESIDENT WAS SHOT DOWN, IN THE TEMPLE OF MUSIC.

1. Marks the spot where the President stood.
2. The assailant stood here when he fired on the President.

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From a photograph by Arnold.

Rose Barron, of the Long Island College Hospital, Brooklyn; Miss Mary A. Shannon, of the Cincinnati General Hospital, and Miss L. E. Dorchester, of the Buffalo General Hospital, were detailed as general assistants. Dr. Hall assisted Dr. Zittel in the general care of the hospital during the operation.

In nine minutes the President was under the effects of the anesthetic, and Dr. Mann after preparing the abdomen made a three inch incision, extending through the bullet hole. There was a deep layer of fat which necessitated the lengthening of the incision an inch, when the peritoneum was reached. At the bottom of the incision and in the bullet wound was found a small circular bit of cloth, probably undershirt, which had been carried

in by the bullet. On opening the peritoneum the intestines were examined and found to be uninjured. On examination of the stomach a bullet wound was found in its anterior wall. The stomach was drawn up and the wound sutured with a double row of silk sutures. Some stomach contents had escaped from the wound. This was wiped away.

The original incision was lengthened two inches so that the posterior wall of the stomach could be examined, and here another bullet wound was found, which was similarly sutured.



ROSWELL PARK.

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In the meantime Dr. Rixey, the President's physician, had arrived from the Milburn house where he had been in attendance on Mrs. McKinley, whose health is extremely delicate. She had but recently passed nigh unto the dark valley and needed the ministrations of a physician almost constantly.

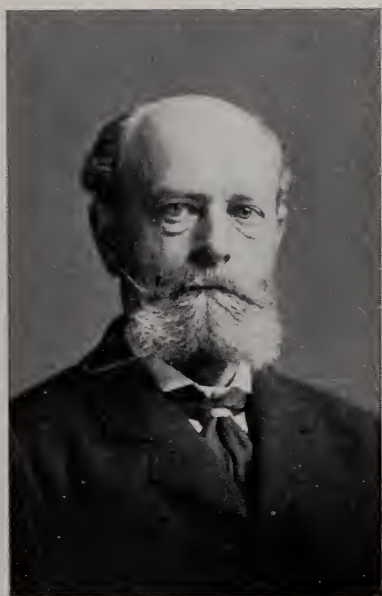
A search was made for the bullet but it could not be found, and as it was in all probability lodged in the deep lumbar muscles it was decided not to make any effort to remove it.

Outside, the crowd, grown denser, hung on every bit of

information which trickled from within the white operating room, however meager.

"Is he alive?" an anxious man near the outside door guard would ask. The guard nodded, and the crowd swayed backward and forward with a rustling noise, as the word was passed along in whispers, like a wheat field dipping to a summer breeze.

A little after 6 o'clock an automobile came noiselessly down



MATTHEW D. MANN.



HERMAN MYNTER.

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the Mall. There was a sudden switch of the wheels in front of the hospital and it came to a stop. A man in the crowd recognised the passenger as he stepped out and hurried into the hospital.

"That's Dr. Park," he said, and the word was passed along that the surgeon so long expected had arrived. Dr. Park made a record run from Niagara Falls. He was in the midst of an operation when he was notified of the shooting. Rapidly he completed his work after sending word to have an engine ready

to take him to Buffalo, and he reached the hospital in two hours after the President had received his wound.

When he entered the operating room he asked what had been done and what had been found, and Dr. Mann told him. The operation was all but completed. All that remained was to flush out the abdominal cavity with salt solution and sew up the abdominal wound. This was done, the abdomen being closed



JOHN PARMENTER.



EUGENE WASDIN.

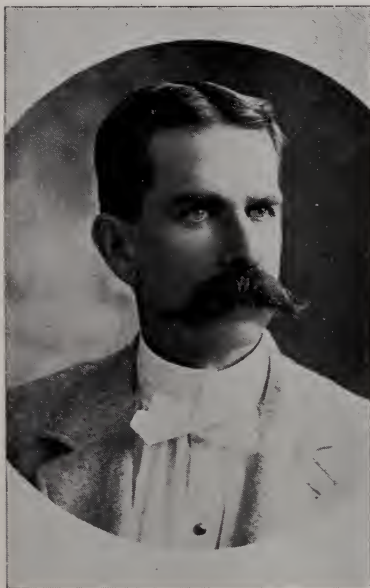
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without drainage. At ten minutes of seven the anesthetic was stopped and the bandages applied. At this time the pulse was 122 and the respiration 32. The President during the operation had been given 1-30 of strychnin and 25 min. of brandy hypodermatically. It was decided after consultation to remove the patient to the residence of Mr. John G. Milburn and a full equipment consisting of bed, bedding and sick room appliances was sent to the house in charge of Miss Simmons and Miss Barnes, who were to take care of the President during the first night. He

was placed in the ambulance and in charge of Dr. Park and Dr. Wasdin was moved to his destination.

ANXIETY AND HOPE.

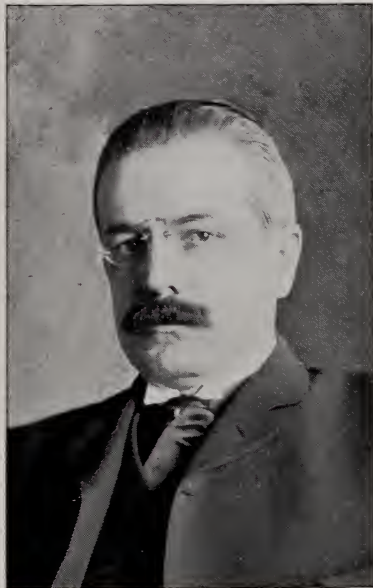
Then came the anxious period of waiting. Bulletins were issued by the President's physicians at frequent intervals. They are published as a part of this article and tell the professional story of the seven days in terse manner. Once or twice will be



P. M. RIXEY.

From a photograph by Clinedinst,
Washington.

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GEO. B. CORTELYOU.

From a photograph by Frances B.
Johnston.

noticed an exultant tone as the condition of the patient improved. There appeared to be no danger until Thursday night. Dr. McBurney, of New York, an eminent surgeon, had arrived on Sunday, and declared the patient would be at his desk in Washington within six weeks. Throughout the land there swelled a feeling of intense relief and gratitude that the life of this good man was to be spared. The surgeons came and went with light steps; they smiled with the confidence the conditions seemed to warrant. Newspapermen, who read events in the

eyes of men, heralded the approaching recovery of the President to all the world in positive words; therefore Theodore Roosevelt, Vice-president of the United States, received from the surgeons the assurances that all was well and left for the Adirondacks; the diplomatic corps took trains for their embassies or their summer homes; some of the members of the Cabinet left for their homes; peace and stillness reigned and the joy and thanksgiving of a vast people were unrestrained. Thursday noon, Dr. McBurney also went away. The bulletins said the President had had a piece of toast—some solid food—and that he was on the high road to recovery.

FEAR AND DESPAIR.

Soon after, late in the afternoon of Thursday, there was a change. A vagueness, an uncertainty, a nameless groping became apparent to the newspaper men on watch. The look in an eye, the lengthening of a facial line, the nervous clicking step, an unwonted activity, told them of a something which had happened. An hour later was the beginning of the end.

The President is not so well; then the President is worse. The President's heart is weak. There has been a collapse. Dr. Charles G. Stockton has been called in consultation. There is grave danger. Strong heart stimulants are being administered.

The world stopped in its work,—a President lay dying. Later came word that the relatives and Cabinet officials had been hurriedly sent for; that couriers were searching the wilderness of the woods for the Vice-president; that Dr. Johnston and Dr. Jane-way had been called from their homes in hot haste, to come to Buffalo to the bedside of the man on whom the eyes of the world were turned.

The President does not respond to the stimulants. Unless there is a change soon he cannot live. The doctors have not given up all hope, but there is grave danger. The President has rallied somewhat, but is very weak. The President has suffered another attack of heart failure. The doctors are administering oxygen. The President is dying. The doctors have given up all hope and have stopped the oxygen. The President



THE WOUNDED PRESIDENT BEING TAKEN INTO THE EXPOSITION HOSPITAL.

From The Illustrated Buffalo Express, copyrighted, 1901, by The J. N. Matthews Company.

From a photograph by Arnold.

has said good-by to his wife and death is rapidly approaching.

With tear dimmed eyes, the world awaited, low-bowed with sorrow for the woman, the patient and devoted wife, who had clung so confidently to the husband who so tenderly watched her when she was battling with the death which now had him in its grasp. She had kissed the white lips; she was holding the hand which had been her protector and her guidance, and he had said good-by. With a world of tenderness and with infinite love he looked at her. It was not a President who was dying. It was a husband bidding a last farewell to a sorely crushed and heart-broken wife; whose last thought was to comfort her in her hour of greatest trial when he whispered:

“God’s will be done; not ours.”

Then a long and weary wait. The President’s eyes closed in unconsciousness and the soul-sick world awaited for the end. Slowly the minutes dragged along and at midnight the President was dying. In the silent chamber the relatives and officials were gathered about the cot where death was reaping the fruits of the blood-red victory of anarchy. The nurses and the hospital corps men of the United States Army moved softly about. Dr. Rixey stood by the side of the form in which barely a breath was left.

THE END.

Outside the wind rustled the leaves of the trees the President loved so well. In the adjoining room slept the wife, mercifully unconscious of the agony of the scene which was being enacted so near her. The respirations became gasps; slower and slower, then halting. Dr. Rixey leaned far forward over the President and raised his hand in warning. A sob broke the awesome silence of the room—a sob which was stifled. The gasping of the President had ceased. Dr. Rixey straightened up, his face drawn with the agony of his suffering. A faint sigh fluttered at the President’s lips, and his head sunk into the pillow like that of a man falling into a deep sleep.

An orderly of the hospital corps stepped silently to the foot of the bed and stood rigidly at attention, his eyes to the front.



THE LAST PORTRAIT OF THE PRESIDENT.

Taken at 3.50 p. m. the day of the shooting, as the President, Mr. Milburn and Mr. Cortelyou were driving to Music Temple to hold the reception. The President was shot just seventeen minutes after this picture was taken.

from a photograph by Frances B. Johnston.

And to the four corners of the world flashed the final bulletin: "The President died at 2.15."

They turned down the lights in the room and left the dead President alone with a white-clad, spectral guard.

THE OFFICIAL BULLETINS.

The official story of the President's case is tersely and scientifically told in these bulletins. The men signing them were Dr. P. M. Rixey, the President's physician; Dr. M. D. Mann, Dr. Roswell Park, Dr. Herman Mynter, Dr. Eugene Wasdin, Dr. Charles McBurney, Dr. Charles G. Stockton and Mr. George B. Cortelyou, secretary to the President. The body of each bulletin is given as it was issued but, for the sake of brevity, the last names of the signers only are printed.

Friday, September 6, 7 p.m.—The President was shot about 4 p.m. One bullet struck him in the upper portion of the breast bone, glancing and not penetrating. The second bullet penetrated the abdomen five inches below the left nipple and one and one-half inches to the left of the median line. The abdomen was opened through the line of the bullet wound. It was found that the bullet had penetrated the stomach. The opening in the front wall of the stomach was carefully closed with silk stitches, after which a search was made for a hole in the back wall of the stomach. This was found and also closed in the same way. The further course of the bullet could not be discovered although careful search was made. The abdominal wound was closed without drainage. No injury to the intestines or other abdominal organ was discovered. The patient stood the operation well. Pulse of good quality, rate of 130. Condition at the conclusion of the operation was gratifying. The result cannot be foretold. His condition at present justifies hope of recovery. Signed, George B. Cortelyou, secretary to the President.

10.40 p.m.—The President is rallying satisfactorily and is resting comfortably. Temperature, 100.4°; pulse, 124; respiration, 24. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.

Saturday, September 7, 1 a.m.—The President is free from pain and resting well. Temperature, 100.2; pulse, 120; respiration, 24.

3 a.m.—The President continues to rest well. Temperature, 101.6°; pulse, 110; respiration, 24. Rixey, Cortelyou.

6 a.m.—The President has passed a good night; temperature, 102°; pulse, 110; respiration, 24. Rixey, Park, Cortelyou.

- 9 a.m.—The President passed a fairly comfortable night and no serious symptoms have developed. Pulse, 146; temperature, 102; respiration, 24. Rixey; Mann, Park, Mynter, Wasdin, Cortelyou.
- 12 m.—There is no decided change in the President's condition since the last bulletin. Pulse, 136; temperature, 102°; respiration, 28. Rixey, Cortelyou.
- 3.30 p.m.—The President continues to rest quietly; no change for the worse. Pulse, 140; temperature, 102.2°; respiration, 24. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.
- 6.30 p.m.—There is no change for the worse since last bulletin; pulse, 130; temperature, 102.5°; respiration, 29. Rixey, Cortelyou.
- 9.30 p.m.—Conditions continue much the same. The President responds well to medicine. Pulse, 132; temperature, 102.5°; respiration, 25. All temperatures reported are taken in the rectum. The physicians in attendance wish to say that they are too busily engaged to reply to individual telegrams. Rixey, Park, Mynter, Wasdin, Cortelyou.

Sunday, September 8.—The public will be kept fully advised of the actual condition of the President. Each bulletin is carefully and conservatively prepared and is an authoritative statement of the most important features of the case at the hour it is issued. The people are entitled to the facts and shall have them. George B. Cortelyou.

- 3.20 a.m.—The President has passed a fairly good night; pulse, 122; temperature, 102.4°; respiration, 24. Rixey, Mynter, Cortelyou.
- 9 a.m.—The President passed a good night and his condition this morning is quite encouraging. His mind is clear and he is resting well; wound dressed at 8.30 and found in a very satisfactory condition. There is no indication of peritonitis. Pulse, 132; temperature, 102.8°; respiration, 24. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.
- 12 m.—The improvement in the President's condition has continued since the last bulletin. Pulse, 128; temperature, 101°; respiration, 27. Rixey, Cortelyou.
- 4 p.m.—The President since the last bulletin has slept quietly—four hours altogether since 9 o'clock. His condition is satisfactory to all physicians present. Pulse, 128; temperature, 101°; respiration, 28. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.
- 9 p.m.—The President is resting comfortably and there is no special change since last bulletin. Pulse, 130; temperature, 101.6°; respiration, 30. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

Monday, September 9, 6 a.m.—The President passed a somewhat restless night, sleeping fairly well. General condition unchanged. Pulse, 120; temperature, 101° ; respiration, 28. Rixey, Mann, Cortelyou.

9.20 a.m.—The President's condition is becoming more and more satisfactory. Untoward incidents are less likely to occur. Pulse, 122; temperature, 100.8° ; respiration, 28. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

3 p.m.—The President's condition steadily improves and he is comfortable, without pain or unfavorable symptoms. Bowel and kidney functions normally performed. Pulse, 113; temperature, 101° ; respiration, 26. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

9.30 p.m.—The President's condition continues favorable. Pulse, 112; temperature, 101° ; respiration, 27. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

Tuesday, September 10, 7 a.m.—The President has passed the most comfortable night since the attempt on his life. Pulse, 118; temperature, 100.4° ; respiration, 28. Rixey, Park, Cortelyou.

9 a.m.—The President's condition this morning is eminently satisfactory to his physicians. If no complications arise a rapid convalescence may be expected. Pulse, 104; temperature, 99.8° ; respiration, 26. This temperature is taken by mouth and should be read about one degree higher by rectum. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

3.20 p.m.—There is no change since this morning's favorable bulletin. Pulse, 110; temperature, 100° ; respiration, 28. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.

10.30 p.m.—The condition of the President is unchanged in all important particulars. His temperature is 100.6° ; pulse, 114; respiration, 28. When the operation was done on Friday last it was noted that the bullet had carried with it a short distance beneath the skin a fragment of the President's coat. This foreign material was, of course, removed, but a slight irritation of the tissues was produced, the evidence of which appeared only tonight. It has been necessary on account of this slight disturbance to remove a few stitches and partially open the skin wound. This incident cannot give rise to other complications, but it is communicated to the public, as the surgeons in attendance wish to make their bulletins entirely frank. In consequence of this separation of the edges of the surface wound the healing of the same will be somewhat delayed. The President is now well enough to begin to take nourishment by the mouth in the form of pure beef juice. Rixey, Mann, Park, Mynter, McBurney, Cortelyou.

Wednesday, September 11, 6 a.m.—The President has passed a very comfortable night. Pulse, 120; temperature, 100.2°; respiration, 26. Rixey, Wasdin, Cortelyou.

9 a.m.—The President rested comfortably during the night. Decided benefit has followed the dressing of the wound made last night. His stomach tolerates the beef juice well and it is taken with great satisfaction. His condition this morning is excellent. Pulse, 116; temperature, 100.2°. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

3.30 p.m.—The President continues to gain and the wound is becoming more healthy. The nourishment taken into the stomach is being gradually increased. Pulse, 120; temperature, 100.2°. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

10 p.m.—The President's condition continues favorable. Blood count corroborates clinical evidence of the absence of any blood poisoning. He is able to take more nourishment and relish it. Pulse, 120; temperature, 100.4°. Rixey, Mann, Park, Mynter, Wasdin, McBurney, Cortelyou.

Thursday, September 12, 6.20 a.m.—The President has had a comfortable night. Pulse, 122; temperature, 100.2°. Rixey, Cortelyou.

9.30 a.m.—The President has spent a quiet and restful night, and has taken much nourishment. He feels better this morning than at any time. He has taken a little solid food this morning and relished it. Pulse, 120; temperature, 100.2°. Rixey, Park, Mynter, Wasdin, Mann, McBurney, Cortelyou.

3 p.m.—The President's condition is very much the same as this morning. His only complaint is of fatigue. He continues to take a sufficient amount of food. Pulse, 126; temperature 100.2°. Rixey, Mann, Park, Mynter, Wasdin, Cortelyou.

8.30 p.m.—The President's condition this evening is not quite so good. His food has not agreed with him and has been stopped. Excretion has not yet been properly established. The kidneys are acting well. His pulse is not satisfactory, but has improved in the last two hours. The wound is doing well. He is resting quietly. Temperature, 100.2°; pulse, 128. Rixey, Mann, Park, Mynter, Wasdin, Stockton, Cortelyou.

12 M.—All unfavorable symptoms in the President's condition have improved since the last bulletin. Pulse, 120; temperature, 100.2°. Rixey, Wasdin, Stockton, Cortelyou.

Friday, September 13, 2.50 a.m.—The President's condition is very serious and gives rise to the gravest apprehension. His bowels have moved well, but his heart does not respond properly to stimulation. He is conscious. The skin is warm, and the pulse small, regular, easily compressible, 126; respiration, 30; temperature, 100°. Rixey, Mann, Park, Mynter, Wasdin, Stockton, Cortelyou.

- 9 a.m.—The President's condition has somewhat improved during the past few hours. There is a better response to stimulation. He is conscious and free from pain. Pulse, 128; temperature, 99.8°. Rixey, Mann, Park, Mynter, Wasdin, Stockton, Cortelyou.
- 2.30 p.m.—The President has more than held his own since morning and his condition justifies the expectation of further improvement. He is better than yesterday at this time. Pulse, 123; temperature, 99.4°. Rixey, Mann, Mynter, Wasdin, Stockton, Cortelyou.
- 4 p.m.—The President's physicians report that he is only slightly improved since the last bulletin. The pulse and temperature remain the same as at that hour. Cortelyou.
- 5.35 p.m.—The President's physicians report that his condition is grave at this hour. He is suffering from extreme prostration. Oxygen is being given. He responds to stimulation but poorly. Pulse, 125; respiration, 40. Cortelyou.
- 6.30 p.m.—The President's physicians report that his condition is most serious in spite of vigorous stimulation. The depression continues and is profound. Unless it can be relieved the end is only a question of time. Cortelyou.

Here the official bulletins ceased. At short intervals, however, word was sent to the newspaper men in camp opposite Milburn house, as to the downward progress of the President toward the dark valley. We append the two most significant of these.

9.30 p.m.—The President is dying.

Saturday, September 14, 2.15 a.m.—The President is dead.

THE AUTOPSY REPORT.

The autopsy was performed by Dr. H. R. Gaylord, and Dr. H. G. Matzinger, of the Buffalo State Pathological Laboratory, on Saturday, the day of death. It was apparently an exhaustive examination occupying several hours. The official report is as follows:

The bullet which struck over the breast bone did not pass through the skin and did little harm.

The other bullet passed through both walls of the stomach near its lower border. Both holes were found to be perfectly closed by the stitches, but the tissue around each hole had become gangrenous. After passing through the stomach the bullet passed into the back walls of the abdomen hitting and tearing the upper end of the kidney. This portion of the bullet track was also gangrenous, the gangrene involving the pancreas.

The bullet has not yet been found. There was no sign of peritonitis or disease of other organs. The heart walls were very thin. There was no evidence of any attempt at repair on the part of nature and death resulted from the gangrene which affected the stomach around the bullet wounds as well as the tissues around the further course of the bullet. Death was unavoidable by any surgical or medical treatment and was the direct result of the bullet wound.

Signed, Harvey R. Gaylord, Herman G. Matzinger, P. M. Rixey, Matthew D. Mann, Herman Mynter, Roswell Park, Eugene Wasdin, Charles G. Stockton, Edward G. Janeway, W. W. Johnston, W. P. Kendall, Surgeon, U. S. Army, Charles Cary, Edward L. Munson, Assistant Surgeon, U. S. Army, Hermanus L. Baer.

Sunday the President's body lay in state at the City Hall from noon until late at night and it is estimated that over 100,000 people gazed at the marble-like features of the dead ruler.

Monday morning the funeral train left Buffalo for Washington.

153 SEVENTH STREET.

REPORTS having been circulated and published to the effect that there was serious disagreement among the President's physicians, a meeting of the staff was held at the residence of Mr. Ansley Wilcox, Tuesday evening, Sept. 17, 1901, to consider the subject. As a result the following statement was issued:

The undersigned, surgeons and physicians who were in attendance on the late President McKinley, have had their attention called to certain sensational statements recently published in the daily papers and particularly in one New York paper, indicating dissension and mutual recrimination among them.

We desire to say to the press and the public, once for all, that every such publication and all alleged interviews with any of us containing criticism of one another or of any of our associates, are false and are nothing but scandal mongering.

We say again that there was never a serious disagreement among the professional attendants as to any of the symptoms or as to treatment of the case, or as to the bulletins which were issued. A very unusual harmony of opinion and of action prevailed all through the case.

The unfortunate result could not have been foreseen before the unfavorable symptoms declared themselves late on the sixth day and could not have been prevented by any human agency.

Pending the completion and publication of the official reports of the post-mortem examiners and of the attending staff we shall refuse to make any further statements for publication, and alleged interviews with any of us may be known to be fictitious. Matthew D. Mann, Roswell Park, Herman Mynter, Eugene Wasdin, Charles G. Stockton.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

All communications, whether of a literary or business nature, books for review and exchanges should be addressed to the editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

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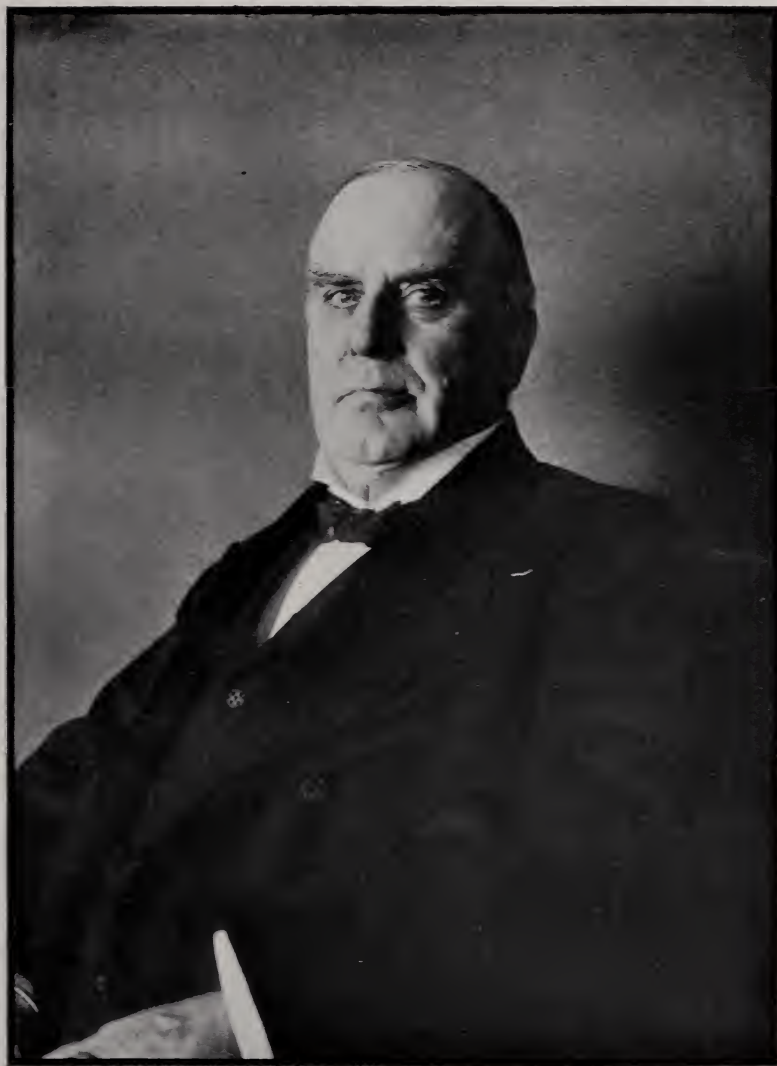
No. 3.

The Assassination of President McKinley.

PRESIDENT WILLIAM McKINLEY, twenty-fourth chief magistrate of the Republic, was mortally shot in the Temple of Music on the grounds of the Pan-American Exposition at Buffalo, at seven minutes after four o'clock, Friday afternoon, September 6, 1901, and died from the effects of wounds then and there inflicted, Saturday, September 14, at fifteen minutes after two o'clock in the morning. His assassin, Leon Czolgosz, was immediately secured and has been tried, convicted, and condemned to death for the crime in the courts of Buffalo.

In these brief sentences is recorded the most heinous, dastardly, revolting murder ever committed within the boundaries of this free and enlightened union of states. In making this assertion we do not forget that two other Presidents,—Lincoln and Garfield,—also have suffered death in a similar manner. But we also remember that the immortal Lincoln was killed during a period of civil war when the passions of men ran riot, and when there was great bitterness of feeling toward the man who had saved the Republic from disruption.

When Garfield was shot there was a high party feeling throughout the land and many were disappointed in the distribution of offices. There were factions at war and the quarrel ran high. A fanatic seized upon this moment to revenge a fancied wrong by killing an innocent and well-meaning executive.



WILLIAM MCKINLEY

Twenty-fourth President of the United States.

Born January 29, 1843—Died September 14, 1901.

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But when William McKinley was so cruelly assailed there was peace everywhere within our broad land, and there were neither party nor partisan quarrels. Moreover, the good President had borne himself so well in his great office that even his party opponents respected him. There were no animosities toward him in the ranks of the opposition, while within, thanks to his tactful management, his own party was a unit in the support which it accorded his administration.

The circumstances attending his taking off were so cruelly inhuman as to lend an additional sadness to the tragedy. This great President came to Buffalo as the guest of the Pan-American Exposition on a mission of good-will to the American people, with peace, prosperity and progress as the settings of a picture that must portray forever a classic epoch in American history. These three essentials to national greatness were the themes of his gifted speech made on the exposition grounds on the morning of September 5, when amidst the assembled thousands he delivered to his fellow-countrymen a message that will take rank with the greatest of state papers, and which attracted the attention of the civilised world.

There was joy that day in Buffalo; the inhabitants and visitors assembled in vast numbers to see the President and listen to his words of wisdom. He was surrounded by his cabinet, by high officials of state, by the diplomatic corps, and by distinguished citizens who had gathered from remote places to do homage to the Chief and lend dignity to the occasion. The sun was shining in all its resplendent glory on as beautiful a scene as the eye need view. The exposition buildings and the landscape architecture reflected the warm effulgent rays of a fading-summer sun which could light up no more charming spectacle in all the world. The turn stiles at the gates were kept busy registering the people who came, and by night-time the total was 116,000, a larger number than had attended in a single day since the opening of the fair. The people were in holiday attire and flags were flying from every staff and pinnacle, making a panorama of life and beauty rare to behold.

"Our earnest prayer is that God will graciously vouchsafe prosperity, happiness and peace to all our neighbors, and like blessings to all the peoples and powers of earth."



"AND THUS HE BEGAN HIS LAST SPEECH!"

THE PRESIDENT ADDRESSING THE THRONG ON PRESIDENT'S
DAY, SEPTEMBER 5.

From The Illustrated Buffalo Express, copyright, 1901, by The J. N. Matthews Company; by special permission from a photograph copyrighted, 1901, by Frances B. Johnston.

The President, too, was happy. He was enjoying a respite from the cares of an office to which he had been twice chosen by seventy millions of people. He was mingling with the people who had thus honored him, and was ready to render an account of his stewardship. He was taking the only real vacation he had enjoyed since his first election. His devoted wife had recovered, or nearly so, from a grievous illness and she, too, was lending her gracious presence with smiling countenance to the enchanting scene. And thus he began his last speech!

A review of the military at the Stadium followed the address, and then the luncheon at the New York State Building, with 200 of his suite and other guests,—civic, diplomatic and military; next a card reception at the Government building; then a return to the Milburn home, that had been given over to the President during his visit, where dinner was served; afterward a drive to the exposition to view the illumination of the tower and buildings; and, finally, the fireworks were witnessed,—the most costly and magnificent pyrotechnic display that ever had been offered, which more than 100,000 people enjoyed. A return to the Milburn house in the balmy evening air at 10 o'clock concluded the ceremonies. And so ended the last happy day the President was to enjoy on earth! Let us hope, let us believe, it was the happiest in all his presidential life.

Early next morning the presidential party was astir, for this was to be a day at the Falls of Niagara, and then a public reception and some informal visiting of the exhibits and other attractions at the exposition. The special train went direct to Lewiston, where awaiting trolleys were boarded and the gorge was viewed as the cars slowly wended their way along the river. At the International Hotel, Niagara Falls, a modest luncheon was served lasting but an hour, then the powerhouse and other points of interest were visited, after which the return to Buffalo was made in season for the public reception that had been appointed to begin in the Temple of Music at four o'clock. On reaching the exposition grounds a short visit was paid to the mission house.

Precisely at the time appointed the President took his place and began to take each one by the hand with all his well-known cordiality. In the next seven minutes a large number had been received, when lo! a man approached with his right hand enveloped in a white handkerchief, giving the impression that he was disabled. The President attempted to grasp the left hand which the assassin offered; but the villain, pushing it aside, at the same time planted his right against the President's breast and discharged twice in rapid succession a pistol which was concealed beneath the handkerchief.

A scene of consternation followed which cannot be described in calm words. Amidst shoutings, faintings, and swayings of the crowd the President was tenderly assisted to a chair in which he calmly sat without murmur or one word of reproach. Meanwhile, before the fiendish assailant could discharge the weapon again he had been secured and taken away. The ambulance had been summoned, and on its arrival the President was laid on the stretcher-bed which, with its precious burden, was lifted into the vehicle. Mr. Cortelyou, the President's faithful secretary, Mr. John G. Milburn, president of the exposition, and the hospital internes took their places in the ambulance which was then driven to the hospital.

The medical history of this saddest of events is told elsewhere in the JOURNAL by those who are familiar with the facts. Dr. Parmenter's account of the operation will be read with interest. His competency as a surgeon is unchallenged, and especially has he had considerable experience with gunshot wounds of the abdomen. Why he was not continued as a member of the staff during the after-treatment of the President is not explained.

Dr. Wilson tells, in graphic manner, the details of the case from beginning to end, and his interesting narrative is a word-picture that has rarely been equaled in medical literature.

It is not our purpose to deal with the surgical aspects of this startling and awful tragedy in this place. It is sufficient for us to remark that there is little in the management to criticise,

while there is much to commend. We leave the long-distance critics a clear field for the exercise of their talents.

Buffalo is too deeply grieved that she has become even the innocent cause of the President's death, to pay heed to idle or unkind remarks concerning the physicians who so creditably performed their parts, and who did all that human skill could do to save a life so precious to the nation.

In the midst of so much that tends to sadden our hearts, it is some consolation to reflect that men were easily accessible so thoroughly competent to deal with the case. It must ever be a matter of local pride that a suitable hospital had been provided within the exposition grounds, where such an important operation could be done quickly; and, further, that three of our surgeons could be assembled promptly, who had the skill and presence of mind to deal adequately with such formidable wounds, without a moment's unnecessary delay. These two facts, we repeat, are sources of much comfort to the medical profession of Buffalo, and ought to take precedence in the minds of the people over every other consideration.

We cannot be personal, or make invidious distinctions here, but to all the surgeons and physicians who served in the President's case our gratitude is tendered. Each played his part well; all share the honor of having used a combined skill and judgment rarely equaled and never excelled, and none should be exalted or belittled above or below a common meed of praise that each alike is entitled to receive.

A word of praise likewise may be said of the nurses, hospital corps men, and other attendants who so devotedly served the wounded and dying President during those trying days and nights. The newspaper men in the camp opposite Milburn house also were self-sacrificing and faithful under many difficulties.

We are greatly indebted to the *Illustrated Buffalo Express*, for courteously supplying to the JOURNAL the illustrations which we publish as a part of the history of the case.



The Medical Association of Central New York.

THE Medical Association of Central New York held its 34th annual meeting at Buffalo, N.Y., on August 27 and 28, 1901. In point of attendance, quality of papers presented at the sessions and cordiality among the members, this meeting must rank as one of the best ever held by the association. An innovation was made in having two morning sessions, because of the attractions at the Pan-American Exposition, and on this account the meeting was held six weeks ahead of the usual time. This prevented the attendance of many of the older members who generally take their vacation during the month of August, and their faces were missed at the different places of assemblage. Meeting during the exposition season, the members were entertained by a committee of Buffalo physicians, who were generously assisted by several of the exposition concessionnaires, notably among the latter were Mr. Frank C. Bostock, the animal king, who kindly sent Esau, the educated Chimpanzee, to the morning sessions of the second day, where a spirited discussion arose as to his place in the evolution of man. Dr. Coney, of the Infant Incubators, invited the association to a special demonstration in order to study more carefully the many advantages offered by these life-saving inventions. Wenona, of the Indian Congress, consented to appear at the dinner given at the "Streets of Mexico" and showed her skill and expertness with the rifle. Mr. Locke had charge of the dinner and served it in real Mexican style.

On the whole a most enjoyable time was spent on the grounds and the members were full of praise for the hospitality accorded by the Buffalo physicians and their allies. A full report of the meeting, besides several of the papers, will be found elsewhere in the columns of the JOURNAL.

SOCIETY MEETINGS.

THE American Association of Obstetricians and Gynecologists held its fourteenth annual meeting at Cleveland, O., September 17, 18 and 19, 1901. The president, Dr. William E. B. Davis, of Birmingham, conducted the meeting most efficiently and it easily takes rank as one of the best in the history of the association. The attendance both of Fellows and visitors was unusually large and the debates were spirited, instructive and entertaining.

The arrangements for the meeting were most admirably made

and carried out, reflecting great credit upon the local committee in charge, which consisted of Dr. M. Rosenwasser and Dr. W. H. Humiston. A proposition made last year to change the name of the association to The American Society of Abdominal Surgeons was lost, it having received but two votes,—those of the mover and the seconder. A committee of three, consisting of Drs. Davis, Carstens and Dunning, was appointed to confer with the Southern Surgical and Gynecological Association on the subject of a union of the two bodies,—the report to be made next year.

The annual dinner served at The Hollenden was a most interesting occasion. The tables were handsomely laid and the room was appropriately decorated. The occasion was made largely a memorial to President McKinley, the speakers having been chosen with that object in view, and was presided over by Dr. W. H. Humiston. The address of Hon. J. H. Hoyt, of Cleveland, to the subject, "Our Martyred President," was an eloquent, graceful and touching tribute to the memory of the President who was his neighbor and personal friend. Among the other sentiments of similar tone were "The Late President and the New South," responded to by Dr. L. S. McMurtry, of Louisville; and "Modern Surgery and the President's Case," responded to by Dr. W. G. Macdonald, of Albany. Both of these speakers did themselves and the occasion great credit in the substance, manner and method of their addresses: indeed, all the speeches were models of good form.

Officers were elected for the ensuing year as follows: president, Edwin Ricketts, Cincinnati; vice-presidents, Charles G. Cumston, Boston, and Miles F. Porter, Fort Wayne; secretary, William Warren Potter, Buffalo; treasurer, X. O. Werder, Pittsburg; executive councillors, to succeed themselves, L. H. Dunning, Indianapolis, and Walter B. Chase, New York; to fill a vacancy, William H. Humiston, Cleveland.

The next meeting was appointed to be held at Washington, beginning the third Tuesday of September, 1902. The association adjourned without day at half-past one o'clock Thursday, out of respect to the memory of the late President, whose funeral services at Canton were to commence at two o'clock.

THE Buffalo Academy of Medicine held meetings during the month of September, 1901, as follows:

Section on Medicine.—Tuesday evening, September 3. Program: Intestinal dystyria, J. C. Hemmeter, Baltimore, Md. Treatment of pneumonia, DeLancey Rochester.

Section on Surgery.—Tuesday evening, September 10. Program: Some points on resection of the hip and knee joints, Herman Mynter. Meeting postponed on account of the essayist being in attendance upon the President.

Section on Obstetrics.—Tuesday evening, September 24. Program: Some experiences in a series of obstetrical cases,

Eli H. Long. Diagnosis in vertex presentations, P. W. Van Peyma.

Section on Ophthalmology, Otology, Laryngology, and Rhinology.—Monday evening, September 16. Program: Methyl alcohol, should it be placed on the list of poisons? Swan M. Burnett, Washington, D.C.

Section on Pathology.—Tuesday evening, September 17. Program: Some demonstrations, with projecting microscope, of embryological specimens, including some abnormalities, Prof. Simon Harry Gage, Cornell University, Ithaca,

THE 73d annual meeting of the German Nationalists and Medical Congress was held at Hamburg, Germany, September 22 to 28, 1901. An elaborate program was prepared and great preparation made to hold one of the greatest meetings in the history of the society. This corresponds to the American Medical Association and Association for the Advancement of Science combined, and hence some idea of its scope and strength can be gained by the comparison.

THE Medical Society of the State of New York will hold a semi-annual meeting in Hosack Hall, New York Academy of Medicine, No. 17 West 43d. Street, New York City, on October 15 and 16, 1901. An excellent program has been prepared and a large attendance is anticipated.

PAN-AMERICAN NOTES.

MR. FRANK C. BOSTOCK'S animal arena is one of the most attractive exhibitions of the animal kingdom that the world has ever witnessed. It is not only entertaining, but it is instructive, and has already been the means of informing hundreds of thousands of young people as to the manner of training wild and ferocious animals, and also as to their habitats, methods of life, and general conduct towards human beings. Especially has it taught the young mind the necessity of kindness in dealing with all animal nature.

A sketch of Mr. Bostock's career may prove of interest. He was born in a traveling caravan in England and is now 35 years of age. He began to train animals at the age of 14, a mere lad, and has attained the front rank.

He has justly won the name of "The Animal King," to which his long experience and success as a trainer entitle him. He is



THE GREAT BOSTOCK.

in the fresh vigor of young manhood, and is one of the most accomplished showmen in the world. His Pan-American Exposition arena alone cost half a million of dollars, and altogether his enterprises, here and elsewhere, aggregate a cost of a million or two of money.



BONAVITA'S MASTERPIECE.

est animal exhibition in the world.

Captain Jack Bonavita, "the lion monarch," as he has been appropriately named, is one of the greatest trainers of lions, and has taken as many as 27 of these ferocious beasts into the arena at one time. Occasionally he has prolonged contests with some of them before he succeeds in making them take their proper places, and sometimes receives wounds while performing his great lion acts. He is 36 years old and converses most interestingly and agreeably on the subject of his life-work.

Madame Morelli is another wonderful instance of human mastery over the most ferocious of wild beasts. She and her leopards, jaguars and panthers make a thrilling exhibition that is as fascinating as it is novel. The whole management is characterised by the utmost discipline and every employee in Mr. Bostock's great zoological garden appears to have acquired by the example of the chief, those courteous manners that are so essential to success. No visitors at the exposition will have done justice to themselves without seeing this greatest of menageries.



BOOK REVIEWS.

THE TREATMENT OF FRACTURES. By W. L. ESTES, A. M., M. D., Director and Physician and Surgeon-in-Chief of St. Luke's Hospital, South Bethlehem, Pa. With numerous original illustrations. New York: International Journal of Surgery Co. 1900. [Price, \$2.00.]

The International Journal of Surgery in publishing this book has given to the profession a handy and thoroughly practical volume on fractures.

Dr. Estes shows by his treatment of the subject that he is master of it and has made a most valuable contribution to surgical literature. True, it is not pretentious, nor is it bulky—there are only 216 pages all told—but it is full of the meat of the subject and the illustrations tell stories of their own.

Dr. Estes calls his work a "series of papers." Whatever they are, whether a series of papers, a string of lectures, or what not, they are veritable gems. He speaks from a wide and successful practice and one feels intuitively as the pages are gone over that there is something original, and not a rehash of an already rehashed book. Not that Dr. Estes is narrow-minded and egotistical to the extent of worshipping exclusively at his own shrine; far from it. He has quoted liberally and freely from modern authorities and he has taken from them their best ideas and suggestions. Yet the bulk of the work is original and the result of fifteen years' hospital experience in a railroad and mining district.

In the main the discussion of the various fractures is confined to the treatment, and only when it is necessary to a clear understanding of the treatment to be followed are the mechanics touched upon. This is one of the many features which make the work one of practical value. Monographic in tone and treatment, Estes' fractures is worth looking over, even if one thinks he knows all about fractures.

N. W. W.

WHITMAN'S ORTHOPEDIC SURGERY. For Students, Practitioners and Specialists. By ROYAL WHITMAN, M. D., Adjunct Professor of Orthopedic Surgery, New York Polyclinic; Instructor in Orthopedic Surgery in the College of Physicians and Surgeons, and Chief of Orthopedic Department in the Vanderbilt Clinic, New York. In one 8vo volume of 642 pages, with 447 illustrations. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$5.50 net.]

It is with unusual interest and expectation that we have examined this surgery of Royal Whitman, whose past experimental work and original research in his specialty are known to everyone. It must be confessed that our expectations are gratified. The numerous original illustrations alone afford evidence of exhaustive and patient endeavor.

In its general arrangement and order the book resembles Bradford and Lovett's orthopedic surgery. The opening chapter on Pott's disease is exhaustive, and as elsewhere the methods of examination and treatment are fully dealt with while pathological details receive less attention. In the treatment stress is laid on anterior support for the shoulders, to prevent forward bending of the spine when the disease lies in the upper and middle dorsal region. Cabot's operation is given in full, but a decided opinion for or against this procedure is withheld. In discussing lateral curvature, exercises and forcible correction without the use of jackets or supports are advocated. Teschner's exercises and the series in use at the hospital for ruptured and crippled, are outlined with the aid of illustrations.

The American treatment of hip-disease by traction and the English treatment by fixation are distinguished and their relative efficiency discussed. The author has attempted to combine the two methods, and there is now in use at the hospital a traction brace, which has given satisfaction, with lateral thoracic bar and metal band encircling the chest. The articles on congenital dislocation of the hip and coxa vara are especially good. A general description of the foot, its anatomy, arches and functions is given in which the foot is regarded as a machine,—a valuable introduction to the study of the weak foot and the club foot. Altogether, we can heartily recommend this surgery as a standard text-book and reference work. The binding, illustrations and printing are most satisfactory.

P. LEB.

A MEDICO-LEGAL MANUAL. By WILLIAM W. KEYSOR, Lecturer on Medical Jurisprudence in the Omaha Medical College and Judge of the District Court, Omaha, Nebraska. Duodecimo, pp. 316. Omaha: Burkley Printing Co. 1901. [Price, \$2.00.]

The work before us aims to present and emphasise the legal side of medical jurisprudence, to furnish a variety of useful information on legal topics of particular importance to medical practitioners, and to familiarize the doctor with those legal terms and principles which he ought to know and comprehend in order to acquit himself creditably as an expert witness. It is a work alike useful for dentists, and pharmacists, as well as physicians and surgeons, because it contains matter of vital importance to the healing profession and its allies in regard to contracts for professional services, witness fees, evidence, negligence, malpractice suits and other information of interest to the profession.

It is clear and concise, exceedingly well written, and touches the vital points of all questions discussed. Some few excusable errors have crept into the work. For instance, on page 185, in giving the average weight and length of still-born children, the author employs the word "infant," instead of "fetus." The chapters on Life insurance, Identification of persons, Persons found dead, Fruits of cohabitation, contain valuable legal information and make exceedingly interesting reading.

This work is to be commended to all the learned profession.

W. C. K.

HYPNOTISM. A Complete System of Method, Application and Use, Prepared for the Self-instruction of the Medical Profession. By L. W. DE LAURENCE, Instructor at the School of Hypnotism and Suggestive Therapeutics, Pittsburgh. Illustrated. Chicago: The Henneberry Co. 1901. [Price, \$1.50.]

Works on hypnotism should emanate from professional men, and if they claim to be at all scientific, should be restricted to the profession. Treatises not intended for the profession, but for the laity should not receive the stamp of approval, in fact should be interdicted. It is a question whether the public at large should be allowed to understand the laws of hypnotism, to

acquire the power to hypnotise, and to hypnotise indiscriminately. Much harm and injury has been done innocent individuals by unprincipled hypnotists, and the time has come when hypnotism should belong as exclusively to the medical profession as the right to prescribe poisonous drugs.

The book at hand caters more to the "intelligent person" than to the "medical man" and inasmuch as it goes quite deeply into the art of hypnotising, it should be restricted to the profession from the professional point of view. The author gives a clear, intelligible exposition of the laws and processes of hypnotism, taking up telepathy, magnetic healing, trance, dreams and allied psychological states.

Many illustrations of the different phases of hypnotism adorn the work.

W. C. K.

THE JOHNS HOPKINS HOSPITAL REPORTS. Vol. VIII. Nos. 3-9. 1900.

This number of the Johns Hopkins Hospital Reports is devoted entirely to typhoid fever in its medical and surgical aspects, and is a most important addition to the literature of this disease.

Among the articles of exceptional interest are those of Dr. Osler, on hemiplegia in typhoid; chronic cystitis due to typhoid, by Dr. Young; Gall-bladder complications, by Dr. Camac; surgical treatment, by Dr. Finney; A study of the Widal reaction in 265 cases of typhoid, by Dr. Gwyn; coincident typhoid and malarial infection, by Dr. Irving P. Lyon, of Buffalo, formerly of Johns Hopkins; and other papers of much clinical value.

BOOKS RECEIVED.

A Handbook of Pathological Anatomy and Histology. With an Introductory Section on Post Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York. And T. Mitchell Prudden, M. D., LL. D., Professor of Pathology, College of Physicians and Surgeons, New York. Sixth edition. With 13 full-page plates and 453 illustrations in the text in black and colors. Royal 8vo, pp. 839. New York: William Wood & Company. 1901. [Price, muslin, \$5.00 net; sheep, \$5.75 net.]

A Text-Book of the Practice of Medicine. By James M. Anders, M. D., Ph.D., LL. D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Fifth edition, thoroughly revised. One handsome 8vo volume of 1,297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$5.50 net.]

The Mental Functions of the Brain. An Investigation into their Localisation and their Manifestation in Health and Disease. By Bernard Hollander, M. D., M. R. C. S., L. R. C. P. (London). Illustrated with clinical records of 800 cases of localised brain derangements and with several plates. Octavo, pp. 523. New York and London: G. P. Putnam's Sons. 1901.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M. D. With colored plates and engravings. Fourth revised edition. Octavo, pp. 515. New York: William Wood & Company. 1901.

Twenty-seventh Annual Report of the State Board of Health of the State of Michigan for the Fiscal Year Ending June 30, 1899. Henry B. Baker, M. D., Secretary. 1901.

Mt. Sinai Hospital Reports. Volume II. For 1899 and 1900. Edited by Paul F. Mundé, M. D. New York. 1901.

Transactions of the Medical Society of the State of New York at its Ninety-fifth Annual Session, held at Albany, January 29, 30 and 31, 1901. Frederic C. Curtis, M. D., Secretary. Published by the Society. 1901.

The Pathology and Treatment of Sexual Impotence. By Victor G. Vecki, M. D. Third edition, revised and enlarged Duodecimo, 329 pages. Philadelphia and London: W. B. Saunders & Company. 1901. [Price, cloth, \$2.00 net.]

Nervous and Mental Diseases. By Archibald Church, M. D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and Frederick Peterson, M. D., Chief of Clinic, Department of Nervous and Mental Diseases, and Clinical Lecturer on Psychiatry, College of Physicians and Surgeons, New York. Third edition, revised, and enlarged. Handsome 8vo volume of 870 pages, with 322 illustrations. Philadelphia and London: W. B. Saunders & Company. 1901. [Price, cloth, \$5.00 net.]

The American Illustrated Medical Dictionary. For Practitioners and Students. A Complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of Arteries, Muscles, Nerves, Veins, etc.; of Bacilli, Bacteria, Micrococci, Streptococci; Eponymic Tables of Diseases, Operations, Signs and Symptoms, Stains, Tests, Methods of Treatment, etc., etc. By W. A. Newman Dorland, A. M., M. D., editor of the "American Pocket Medical Dictionary." Second edition, revised. Handsome large 8vo, nearly 800 pages, bound in full flexible leather. Philadelphia and London: W. B. Saunders & Company. 1901 [Price, \$4.50 net.]

Manual of the Diseases of the Eye. For Students and General Practitioners. By Charles H. May, M. D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, New York. Second edition, revised. 12mo, pp. 421. 275 original illustrations, including 36 colored figures. New York: William Wood & Company. 1901.

ITEM.

THE examination of applicants for appointment as assistant surgeon in the army has been resumed in Washington and San Francisco; the army medical boards convened in those cities will remain in session as long as there are candidates to be examined. Seventy-six vacancies in the medical department still remain to be filled, and as it is desired by the military authorities that the department be filled up to its full legal limit as early as practicable, all eligible applicants will be afforded opportunity for examination; those found qualified will be commissioned at an early date. Full information as to eligibility, nature and scope of examination, etc., may be obtained upon application to the Surgeon-General, U. S. Army, Washington, D. C.

EXPLANATION.

MANY of the usual features of the JOURNAL have been forced to give way this month to the material relating to the President's case. We feel sure our readers, subscribers and advertisers, will recognise the paramount importance of this subject, and acquiesce in the precedence it is accorded.

BUFFALO MEDICAL JOURNAL.

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No. 4.

ORIGINAL COMMUNICATIONS.

The Science of Medicine and the Healing Art.¹

By JOHN L. HEFFRON, M. D. Syracuse, N. Y.,
Professor of clinical medicine, Syracuse University.

THE various reviews of the progress of the science and art of medicine during the century just closed are worthy of careful study by all intelligent men. From them I propose to make certain deductions concerning the present status of medicine, and upon them base some conclusions affecting medical legislation for the twentieth century.

The history of the evolution of the science of medicine should be well understood and kept constantly in mind if one would clearly understand the difficulties with which the practice of medicine is still beset. The influence in medical practice of the priestly method, which survives today, is of itself, and without historical data, sufficient proof of the origin of the healing art. From mystery through empiricism to the science of the present, medicine has passed, making a history of unequaled interest.

The science of medicine is founded on a complete knowledge of the structure and the functions of the body as a whole and of each component organ and tissue, of the way by which it is reproduced and the method of its development. The sciences of anatomy, histology, physiology, organic and physiological chemistry and embryology, while essentials to the physician, are the common property of all educated people. They constitute a large part of the recognised courses in sciences in all our uni-

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

versities and concerning their status there is no question, not even in the minds of the most prejudiced dogmatist.

That the past has developed a science of pathology is capable of demonstration to any seeker after the truth. That frost and fire and the poisons of animals, insects and plants produce certain and constant effects upon exposed parts is a part of the experimental knowledge of mankind. No less certain, no less constant and no less invariable effects upon organs and tissues are produced by the various diseases which affect the body, and no less clear is the demonstration, though it requires the scalpel and microscope to reveal it and the educated eye to appreciate it. Pathology is a science.

Every man that is born of woman has experienced disease. The search for its causes has been never ceasing. Demonology, mysticism, superficial observation and philosophic speculation dominated this field up to the middle of the nineteenth century. Then, with much opposition from theologians and philosophers, there was evolved the scientific method of experimentation and demonstration, by which every ancient proposition was tried and its truth or falsity established by methods which are now so universally recognised, that to this generation it seems impossible that they ever could have encountered opposition. By this method there have been established, with little chance of question, the absolute determining causes of most of the recognised diseases, while the study of man and his environment has thrown clear light upon the causes which predispose to disease. The most brilliant demonstrations in the last quarter of the nineteenth century and the most far-reaching in their results, were those of Lister, Pasteur and Koch and their co-laborers. Upon their demonstrated results there has been established the science of etiology.

The natural history of diseases, by which I mean a knowledge of their inception, their development, their natural tendencies and terminations, as manifested by symptoms and physical and vital phenomena, is scientific knowledge. The collected and corrected observations of astute clinicians of the past give us a most accurate picture of each disease that is known, so that the recognition of them is possible. The practical application of such knowledge by one technically trained to the accurate use of all the organs of special sense and to the use of all the instruments of precision and to the laboratory method, constitutes the art of diagnosis. It would be as difficult to exaggerate a state-

ment of the advancement of the methods of diagnosis which have been made during the last quarter of the nineteenth century as to magnify their importance. Among scientific physicians accurate diagnosis is recognised as of primary importance. Indeed, much of the opposition to modern medicine is due to the fact that it has seemingly been considered by a large school of medical men to be not simply the flower of medical education but to be actually the fruit. If such have not taught they have caused many to feel that when an unquestionable diagnosis has been established, any further active interest in the case dies naturally to be awakened only by a post-mortem examination. While much of the reactionary tendencies in medical practice in recent years has been fostered, if not caused by this attitude of some of the leaders in medical thought, it is a pleasure to record that the reviews of the last year indicate that at the dawn of the twentieth century, diagnosis is considered the necessary preliminary step to a scientific therapeutics.

Up to this point it is clear from a history of the past that medicine may now rightfully be considered a science, and upon this deduction all who are at present recognised as physicians by the State of New York are agreed. All recognise as sciences and as essential to the medical practitioner not only the fundamental sciences but pathology, etiology, including bacteriology, the natural history of disease and diagnosis.

I believe that the history of the past also teaches that there is a science of therapeutics. The scientific method of investigation has taught us first the natural tendencies of disease and how they are modified by heredity and environment. It has demonstrated the natural conditions under which diseases are prevented and are overcome. It has demonstrated by experimentation on animals and by observation on man, how various remedial agents modify the course of disease. While it is true that we have as yet but few specific remedies, it is also true that the experimental method has demonstrated the exact physiological action of most of the remedies at present used by the educated physician. To ignore such facts seems to us inexcusable, and to make use of such facts, while professing a belief in a therapeutic dogma incapable of proof by the scientific method, seems dishonest.* But in practical therapeutics, many things have to be reckoned with besides our knowledge of disease, of its natural curative tendency and of the action of remedial agents. The

ignorance, prejudices, emotions and egotism of the sick make them easily dupes and the world has never lacked those who prey upon them.

Huxley said in a humorous letter to his daughter: "Men, my dear, are very queer animals; a mixture of horse-nervousness, ass-stubbornness and camel-malice, with an angel bobbing about unexpectedly like the apple in the posset and when they can do exactly as they please, they are very hard to drive." People who are so divided as to the proper method of saving their souls that religious sects multiply constantly, can hardly be expected in this century to be a unit on the proper method of saving their bodies. It will be difficult if not impossible for scientific physicians to persuade the people that they are actuated by purely philanthropic motives in pressing legislation upon them which may make their choice of methods of healing impossible or limited. Our purpose may be never so pure, our zeal know no langor, our reasoning logical and flawless, our demonstration of blessings already conferred on the people by scientific control of the great plagues, like smallpox, enforced by legislative enactment, most convincing and yet over and over again you will have the spectacle of delightful men like Mark Twain and Will Carleton, standing as champions for the right of people to a free choice of the method by which they shall be cured or killed. It is the easiest thing in the world to establish a doctrine and freedom to believe in it, however erroneous or even harmful it may be, is looked upon as an inalienable right. The profession long ago recognised the fallibility of statistics and knows that any number of facts can be arrayed in support of any proposition however absurd. But in the minds of the people, there is no distinction between post hoc and propter hoc, and testimony of benefit received after any treatment is convincing, even to a mind educated in all but the special field in which we labor. However much historical criticism may negative miracle, yet echoing down the centuries, convincing to the people, comes such expressions as this: "One thing I know; whereas I was blind now I see."

None can deprecate sectarianism more than I. It has served only to obscure the truth in every department of human knowledge. The zeal with which any particular dogma is accepted tends but to blind the intellect to a perception of its true importance and its relationship. It is so in theology, in politics, in medicine. But so long as human nature is as it is, and is

fallible, so long will dogma gain possession of the minds of the multitude. In matters of belief and of what one considers to be of belief, there will be no possibility of proving in the twentieth century that only one belief is right. Such considerations, it seems to me, must have been the foundation of the recognition by the legislature of our state of the medical sects known as homeopathy and eclecticism. When this state legally recognised the physicians at that time practising within her borders and classified them in three groups, regular, homeopathic and eclectic, she at the same time made our present law requiring all candidates for the profession of medicine to pass examinations identical in all branches save in those pertaining to the practice of medicine. I think all older physicians who have lived through this discussion will agree that the results to the people have justified the law. Without any question whatever the making of the law has greatly improved the quality of the average medical practitioner in our state. A uniform standard for all save in therapeutics has compelled a higher and more thorough education of all. A study of the curricula of the various medical schools, more particularly of those in which therapeutic dogma is taught, is proof sufficient of the truthfulness of this proposition. I am connected with a medical school that has always commanded respect for its high standards, voluntarily set up when higher medical education was the exception in our nation, but I can testify that this law has been so well enforced, that the state examinations by the licensing board appear to the best of our students as a thorough test of scholarship. This is also true in those coming from sectarian schools. The result is that the state has a body of medical practitioners, grown up since the establishment of this law, of more than ordinary qualifications. The beneficent results have been felt by the people whether they know it or not. The grounding of all in the science of medicine has greatly modified the peculiar dogmas of practice and has been a process of enlightenment that has done more toward minimizing the evils of what we believe to be false doctrine than centuries of direct opposition.

But these examinations present some anomalies which we should correct and I believe the times are now ripe for considering them. I know not by whose authority the single individualised examination for each special group of physicians was entitled, "Therapeutics, practice and materia medica," but I believe I know that all physicians recognised by the state will agree that there is no

dogma in the knowledge of the natural history of disease which must be what is meant by "practice" independent of *materia medica* and therapeutics. In each of the papers prepared by the committee, selected by the New York State Medical Society for the past few years, there is one or more questions requiring a description of the natural history of a disease with no inquiry as to the treatment, and which every candidate for a license to practise should answer. In our efforts to improve medical legislation, let us correct this anomaly first, and agree to request the regents to make the individualised examination one in "*materia medica* and therapeutics" only.

On the other hand, there is no title under which there can be required a description of the natural history of disease and this is a grave omission. Inasmuch as our continental confrères have for many years used the term, "internal medicine" as a convenient title for this subject, I would suggest that this term be adopted in the state examinations, as it is already well known in medical literature.

If it is not advisable to increase the number of subjects for examination, it would seem to me in harmony with modern tendencies in medical education to relegate "chemistry," by which is generally understood inorganic chemistry to the entrance examinations. In that case physiological chemistry would be understood to belong to physiology and organic chemistry to both physiology and pathology and would be included in the final examination in those two subjects. Pathology, being related to both surgery and internal medicine should be a subject for examination by itself. We would then have the following subjects for the examinations for a license to practise medicine in our state, viz.: anatomy, physiology and hygiene, pathology, internal medicine and diagnosis, surgery, obstetrics, *materia medica* and therapeutics. This would be harmonising our examinations with the spirit of the law and the letter could be made to conform by slight amendments to the existing law. A minute to this effect forwarded from this body to the committee on legislation of the New York State Medical Society would meet with respectful consideration, and if I do not greatly mistake the spirit of physicians not in affiliation with us, a similar minute to their proper committee would be respectfully received. It seems to me that this is the first essential step in considering other medical legislative acts which must of a certainty come up this winter. It is absolutely impossible to unify medical practice.

There are no two physicians in any single school whose practice and methods are identical, however similar they may be. It is a curious phenomenon that the majority of those who have emancipated themselves from theological dogma have embraced medical dogma because it is a late efflorescence and because the new is supposed to be the advanced thought. As before said the multitude claim the right to believe what appeals to their reason and no body of men can prevent it. On the other hand, I am convinced that the workings of the present medical law have been so favorable, that it will not be difficult to persuade the people and their representatives in legislative halls of the truth of the fundamental principle, that he who would practice the healing art by any method whatsoever should be compelled to show-proof of his knowledge of the human body and of the diseases which it suffers, and should be able to tell what is the matter with a sick man before he applies his remedy. If we use the term "one who practises the healing art" instead of "one who practises medicine" which to most seems to indicate that such an one must use drugs, it will be seen instantly that it of necessity includes all of the latter day candidates for financial support by sick people whether they be termed "mental healers," "faith curers," "christian scientists," "osteopaths," or what nots. If we could secure an amendment to the present medical law, whereby all those who propose to practise the healing art must pass examinations identical in all subjects save in materia medica and therapeutics or the application of remedial measures and leave such a person as free in the exercise of his art as we ourselves are from our very lack of limitations, there can be no question but that we would serve the people, and we would be benefactors to the very ones whose errors we deplore.

528 S SALINA STREET.

Deafness from Scarlet Fever.¹

SARGENT F. SNOW, M. D., Syracuse, N. Y.

THAT the disease, scarlet fever, is responsible for quite a percentage of our incurable cases of deafness is too well known to be questioned. It often also goes further and fastens upon the patient that constant menace to life—a chronic suppurative discharge from the middle-ear with the dangers of

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

mastoid and intercranial invasion, hence it behooves us by discussion and otherwise to ferret out each possible advance in the prevention and cure of its ravages.

The acute inflammation of the pharynx that accompanies scarlatina differs from the inflammation that occurs in other germ diseases, principally in its degree of activity. It is perhaps too much to expect that we can ever entirely prevent aural involvements because of this activity of the morbid processes in the early part of the disease, but there can be an improvement in the amount of attention given to the throat and ear symptoms.

Extreme impairment of hearing that lasts throughout life often is the result of neglect in the simplest precautionary measures. Perfect drainage and cleanliness are as much indicated in the ear inflammations that occur in scarlet fever and measles as in those that occur from influenza and common colds.

Pain in the ear is a warning of impending disaster. A most destructive necrosis may follow, involving not only the function of hearing but life itself. The organism producing this necrosis in scarlatina possesses much virulence, and if pent up will do lasting damage. Acute meningeal inflammations are often traceable to the middle-ear. No laxity of effort can be excused; local treatment indicated at this time promotes the general recovery. In each case the nasal passages should be sprayed by alkaline antiseptic solution, followed by a soothing oily lotion, and if active ear symptoms do supervene, hot irrigations 110 to 125° Fahrenheit, or tympanic incision and the Sprague ice bag, will not only relieve suffering but materially reduce inflammatory action.

Just in this connection, under the plan of treatment briefly outlined above, nice points of discrimination often arise concerning the advisability of opening the drum head, and the length of time that the ice bag should be kept on; the first can with safety always be answered in the affirmative; a good opening is needed, free drainage hastens, and helps a long way toward a complete result. The second point by the general statement that constant cold applications should be continued as long as they appear to do good.

It has been wisely said that "an ounce of prevention is worth a pound of cure," but in the graver cases of scarlet fever with high range of temperature, much vomiting, details of quarantine and the like, the attending physician is forced to use his later prerogatives. The collection within the middle-ear cavity has perhaps ruptured the drum nature attempted to give relief;

if she made the opening free enough, antiseptic cleansing may be all that is necessary—otherwise the best care of a skilled otologist is none too good.

In the consideration of the chronically deaf from this disease, a different proposition is presented. The case is practically beyond the reach of the general practitioner and many times the destructive action has been so great that the specialist can do no good, further than correcting discharges, a procedure very essential and sometimes hard to accomplish. Then again it may be found that the suppurative action has destroyed only a portion of the drum, leaving the ossicular chain in a fairly good condition, in which event no case should be discouraged until attempts at repairing the natural drum or fitting a false one are carefully made. A brief outline of two of my cases will perhaps be interesting in this connection and show what may be accomplished under favorable circumstances.

Case I.—Miss D., referred by Dr. A. S. Edwards, aged 23, general health fair, came to me September 25, 1893, with history of thick watery discharge, with odor from each ear since having scarlet fever when four years old; R.H.D., was 12-100, L.H.D., 3-100 for the watch. Had for a time noticed something growing in the ear and that the discharge was more or less bloody. An examination showed both external canals plugged with pale red masses, which were immediately snared out, and later the stumps treated with chromic acid fused on a probe and carefully applied at different sittings. Along with this treatment, attention was paid to an attending catarrhal state of the nasal and post-nasal membranes, removing overgrown portions of the middle turbinates and otherwise improving the local head conditions with the result that on March 22, 1895, thirty-two months after beginning treatment, the perforation in each drum was closed and her hearing by same tests was 100-100, and was still normal the last time I saw her July 5, 1901.

Case II.—Mrs. A., aged 29, referred by Dr. R. C. McLennan, with a history similar to the one just mentioned except that there had been no bloody character to the discharge, though it had been continuous and foul since having the fever when six years old. Examination showed the very common state, pustular discharge, the whole drum and ossicular chain destroyed in one ear and a large perforation in the drum of the other. The hearing in both ears was so much diminished that watch sounds could not be appreciated, but numbers spoken in ordinary voices she could hear by the left ear, six feet.

Treatment along the line above described succeeded in correcting the discharge from the left ear, (the one that had not suffered such extensive ravages) and later, after reducing a

catarrhal sensitiveness that existed in the post-nasal space and eustachian tube on that side, a false drum made from a disk of rubber film was fitted: The hearing immediately improved to 24 feet for ordinary voice sounds, and 86 inches for the forced whisper, a gain of 400 per cent., which holds good at the present time. The discharge from the right ear, though very thin and light, has never absolutely ceased owing to a small area which has resisted such curettement as can be given without a general anesthetic. Neither has the hearing on that side changed, but the improvement in the left ear has been so marked that we are perfectly satisfied.

Personal experience has taught me that minute applications of chromic acid to the stumps of polyps or to granulated areas, as described above, are very effective in correcting chronic discharges where nitrate of silver has failed, but they must be made by a very steady hand and under good illumination, touching only the proper tissues. Repeated stimulation of the edges, if the hole be not too large, is well recognised as being quite reliable in healing over old perforations in the tympanum.

A practical point in any and all cases that I would again emphasize is the correction of catarrhal tendencies in the head membranes; no artificial appliance will be tolerated nor improvement be permanent if the condition be repeatedly aggravated by inflammation from colds, or nasal malformations.

The false drum mentioned differs from the one commonly used, as a thread takes the place of the steel wire shank, thereby lessening the friction sounds and chances of irritation. As described by Greuber (see page 291 of his work on Diseases of the Ear), the drum is inserted by the introducer, which is simply a piece of small steel wire one inch long, with small eyelet at one end bent at a right angle, through which the thread is passed, holding the rubber film firmly against the eyelet until placed in the ear, when the wire introducer is withdrawn, the excess thread pushed into the canal and left from one to three days.

These two cases selected from my records are simply representative of a large class that come to the otologist and just such ones that are going through life with not even an examination by an expert to see whether the destructive action has been so great that there is no help in either of the above methods.

The popular opinion that a cloak of mystery surrounds the ear condition in or following scarlet fever is wrong, and should in no instance shield a lack of professional effort. Aggressive scientific work pays well.

The Ethics of Nursing.¹

By GEO. E. BLACKHAM, M.D., Dunkirk, N. Y.,

President of the Medical and Surgical Staff of the Brooks Memorial Hospital.

IT GIVES me great pleasure to offer you at the outset of your professional careers, a hearty welcome from the board of directors and the medical and surgical staff. You have chosen a high and honorable calling—one closely allied to that of the Master himself, who, we are told, "went about doing good" and offered us evidence of his divine mission, the fact that through his ministration the blind see, and the deaf hear, and the dead are raised up. While such wonders may not mark your path, yet I hope much suffering may be alleviated and many sick ones be healed through your work.

So, then, the mission of the trained nurse is essentially one of comfort and healing. If you have chosen this path through any unworthy motive, merely as an easier or more genteel way of making a living than working or washing dishes, book-keeping or stenography,—if you have chosen it merely for the money there is in it for you, you have chosen unwisely and would better give it up now. But if you have chosen it because, in addition to providing you with an honorable means of livelihood, it also offers you almost unlimited opportunities for doing good, then you have chosen wisely and I exhort you to continue in the face of all the difficulties and discomforts, and they are many, that will constantly beset your path.

To do your work well you must learn many things and you have a distinct advantage in beginning your studies in a small hospital, where you can receive more individual instruction than if you were members of a large class in a large hospital where the patients are classified into departments and you could see only a single class at a time. Here, too, the conditions approximate more closely to those which will confront you in private practice. Your superintendent, Miss Crysler, will see to it that you have opportunities to learn and practice the details of your profession, and members of the medical and surgical staff will give you instructions by means of lectures and demonstrations, but after all, the extent to which you will profit by these opportunities will depend chiefly upon yourselves.

You must study and work—work and study—deeming nothing too small or unimportant to receive your full attention.

1. Introductory lecture to the first course at the Brooks Memorial Hospital Training School for Nurses, delivered October 1, 1901.

As George Herbert has well said:

"A servant with this clause
Makes drudgery divine—
Who sweeps a room as for Thy laws—
Makes that and th' action fine."

Nor on the other hand must you deem anything too great or too deep for you to learn all you can about it. Of the mysteries of anatomy and physiology, of materia medica and pharmacy, you must have some knowledge, but in acquiring this you must not neglect the minor matters which are after all more important for a good nurse to know.

It is a far cry from the Sary Gamps and Betsey Prigs who dropped their snuff into the unfortunate patients broth and addled their own already dull brains with gin and water, to the neat, alert, capable and conscientious trained nurse of the twentieth century, whose presence brings hope and confidence and whose touch brings comfort and healing to the sick and afflicted. The difference is by no means entirely due to the fact that the trained nurse knows more of the technicalities of her profession; it is even more due to that fact that she is a different woman; one with a higher conception of the sacredness of her calling; for a nurse may be able to pass the most rigid examination in every technical subject and yet be as totally unfit for the sick room as poor drunken old Sary Gamp ever was, unless she knows and practises the ethics of her profession.

Ethics has been defined as the science of duty and it is even more the art of doing one's duty. If it be true that in a sense "the manners make the man," it is even more true that manners make the woman, so that you may be learned in all the scientific parts of your profession, may have muscles of iron and nerves of steel and yet fall far short of the ideal of the trained nurse, if you do not know and practice ethics, and it is of this that I have been assigned to speak to you tonight.

Ethics may, then, be briefly defined as the science and art of doing one's duty and the ethics of nursing may conveniently be divided into (1) the duty of the nurse to herself; (2) the duty of the nurse to her patients; (3) the duty of the nurse to the family of the patient; (4) the duty of the nurse to the attending physician or surgeon; (5) the duty of the nurse to her alma mater; (6) the duty of the nurse to the community in general.

The first duty of the nurse is to be clean physically, mentally and morally. The surgery of today differs from that of one

hundred or even fifty years ago chiefly in the matter of cleanliness. Not that the older surgeons were not clean, as they understood cleanliness, but since the days of Lister, of Pasteur, and of Koch, cleanliness has taken on a new meaning. In the old days the surgeon operated and washed his hands. Now he washes his hands before he operates and not only that but he does it with an elaboration of detail and a thoroughness and perfection of technique that outrivals the ceremonial ablutions of the Mosaic Code. Now every knife and needle must go through the purgatory of flame or of steam; must soak in cleansing solutions of lysol, cresol, phenol or some other of the phenol group, till the last infinitesimal microbe, bacterium or coccus is routed. The patient must be bathed and scrubbed with green soap, ether, alcohol, bichloride solution, etc. Dressings must be sterilised and even the water used to wash the wounds or instruments must be freshly boiled. Verily, the cornerstone of modern surgery is the old prescription that the prophet Elisha gave unto Naaman, the Syrian—"wash and be clean," and the mental and the moral asepsis is as important as the physical.

The trained nurse must keep in training. Medical science is advancing at such a pace, that one who would not be left behind must struggle to keep up; study, observe, reflect, keep posted, keep up to date, and that you may have strength of body and clearness of brain to do so, keep well; observe yourself the sanitary laws that it is your duty to administer to others; see that you dress simply and healthfully; that you eat to live and not live to eat; take plenty of fresh air, of sunshine, and of sleep. To do so will not always be easy, for, as yet, too many families seem to regard the trained nurse merely as an additional domestic who, in some mysterious way, has solved the problem of perpetual motion and become gifted with the ability to minister to the patient night and day without intermissions for rest, exercise or refreshment.

The dress of the trained nurse should be scrupulously plain and neat, the uniform of her school when possible, but always fresh and clean. Her voice should be like Annie Laurie's, low and sweet, and her manner modest but assured—pleasant but reserved. She must learn to control her temper and her tongue, and to err, if at all, on the side of silence rather than loquacity. She should respect herself and her office and by so doing cause others to respect them also.

Second.—The duty of a trained nurse to her patient is first of all to see that the orders of the attending physician are carried out with scrupulous exactness and in such a way as shall cause the least possible disturbance and discomfort.

She must learn to anticipate the wants and needs of her patient and to gratify them so far as is consistent with his good without waiting for him to ask, and above all, without bothering him with well meant but irritating inquiries as to "shall I do this?" or "wouldn't you like that?" As I have already said, her voice must be low and sweet and she must learn to avoid that dreadful stage whisper which some people seem to think the proper method of speech for the sick room and than which I know of nothing more rasping to the nerves of the invalid. She must learn to do her work quietly. How many a sick one has been rudely awakened from the dearly bought slumber by the rattling of coals upon the fire, when, had they been tied up in little paper bags before being brought into the sick room, they might have been placed upon the fire so noiselessly as not to disturb the sleeper.

The manner of the nurse should be cheerful though not frivolous. A dismal face upon the nurse is always noticed by the patient, who can notice anything, and many times by those who seem past noticing, and may add sufficient depression to turn the balance the wrong way. Be cheerful, then, for your own sake, as well as that of the patient, and while not lacking in sympathy for the sufferings of your patient, do not share them too freely, nor look too dismally into the future. The cheery hopefulness of the nurse has lighted the pathway of many a sufferer out of the valley of the shadow.

Be patient, also. Remember that the brain is sick with the rest of the body and the patient therefore irritable and unreasonable and liable to murmur and complain of your best and wisest efforts for his, or her, comfort and welfare. Bear with him then. Repress the sharp retort that will often rise unbidden to your lips but should never be allowed to pass them.

Third.—To the family of the patient the trained nurse should come as a friend in need; a very present help in time of trouble. She comes to bring trained skill in place of ignorant affection, to replace unreasoning anxiety with cool rational knowledge and to relieve relatives and friends, so far as may be, of the responsibility for and, to a much less degree, the labor of caring for the patient. Her face must be guarded as well as her tongue,

for the eye of affection is made keen by apprehension and is quick to detect, or fancy it detects, unfavorable omens in the face of the nurse. It is often difficult for the nurse to strike the happy medium between too great and too little familiarity with the family, between too great and too little willingness to spend and be spent in the service of her patient, and it is better to err on the side of reserve rather than familiarity, and of willingness rather than unwillingness to labor and to watch. See that the family respect your position and your rights, but be not too rigid nor exacting as to what are your rights nor too harsh in your manner of securing them.

Always remember that your position in the sick room is one of honor and trust as well as responsibility, that the door of many a secret closet will necessarily be opened to you, and many a hideous skeleton revealed, but that the confidences of the sick room are as sacred as those of the confessional, and that you must be ever on your guard lest by word, sign or look you might betray any portion of the sacred confidence reposed in you. This task of keeping a serious secret is far less difficult than to maintain the necessary reserve in reference to the little things of the sick room, and yet the little task is often as important. The best way is to say as little as possible about your patient or the case.

Fourth.—To the attending physician the trained nurse comes as a tried and trusted lieutenant, one who can be depended upon to carry out his orders with intelligence and accuracy; who will guard his interests as well as those of the patient, keeping him informed of all that occurs between his visits that may be of value to him in his management of the case, and above all refraining from any criticism by word, look or gesture, which might tend to shake the confidence of the patient or the family in his skill, ability or devotion. It is the physician, not the nurse, who is finally responsible for the treatment of the case. He is presumed to have a wider, deeper, more thorough knowledge of what is wrong and of what should or should not be done to set it right and it is for the nurse to coöperate with him to the best of her ability, not to criticise, much less to disobey or deceive one who carries the dread responsibilities of life and death.

It is best never to discuss, even among yourselves, the respective merits of various physicians whose patients you have nursed.

Fifth.—To your alma mater—the training school of Brooks Memorial Hospital—your first duty is to remember it with affection, to so conduct yourselves as to reflect credit upon it; to remember that it cannot, and does not pretend to, complete your education, but to start you right; to set your feet in a path that leads onward and upwards and whose end you may never hope to reach while life shall last.

Sixth.—To the community at large the trained nurse owes the duty of disseminating, by example at least, some knowledge of the principles of her profession, of the gospel of cleanliness, fresh-air, temperance and cheerfulness, of reliance upon medical science rather than upon the vain and boastful claims of the patent medicine manufacturer with his universal panacea, or the unchristian unscientist whose efforts for the relief of suffering consist in the iteration of the inverted axiom that “disease and death cannot and do not exist.”

It is your duty to demonstrate to the world at large that you occupy honorable positions in the ranks of that great army which is fighting disease and death, and incidentally sin, and that you are ready, if need be, to sacrifice comfort, health, yea even life itself, as many a nurse, trained and untrained, has done before you, in your high and holy calling of bringing comfort, consolation and healing to the sick and suffering.

When I think of a trained nurse, I am reminded of the little girl who said that woman was a verb, because a verb was to be, to do, and to suffer. God, in making you women, gave you the capacity for being, doing, and suffering, and we in this training school will earnestly strive to teach you how to be, to do, yes, and if need be to suffer for the best good of your fellow mortal immortals. And I hope that when we assemble here again two years hence we may be able to present each one of you with a certificate of having passed successfully through the prescribed course of study and experience necessary to fit you for your profession and that we may send you forth the advance guard of an army “of honorable women not a few” who shall go out from this school well fitted to battle with disease and death and bring ease and comfort to many a sick room. Not yours nor theirs, the marching host, the glittering blades, the martial music, the pomp and circumstance of war, but the snowy cap or the red cross chevron are no less honorable emblems of valor and conquest than waving banners and golden epaulets—it is more glorious to save than to destroy.

This truth has been most beautifully expressed by that great poet and physician, the genial Autocrat of the Breakfast Table, the late Dr. Oliver Wendell Holmes in his poem of "The Two Armies."

"As Life's unending column pours,
Two marshalled hosts are seen,
Two armies on the trampled shores
That Death flows black between.

One marches to the drum beat's roll,
The wide-mouthed clarion's bray,
And bears upon a crimson scroll—
'Our Glory is to slay.'

One moves in silence by the stream,
With sad, yet watchful eyes,
Calm as the patient planet's gleam,
That walks the clouded skies.

Along its front no sabres shine,
No blood-red pennons wave;
Its banner bears the single line,
'Our duty is to save.'

For those—no death-bed's lingering
shade;
At Honor's trumpet call—
With knitted brow and lifted blade
In glory's arms they fall.

For these no flashing falchions bright,
No stirring battle-cry;
The bloodless stabber calls by night—
Each answers—'Here am I.'

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For those the sculptor's laureled
bust,
The builder's marble piles,
The anthems pealing o'er their dust
Through long cathedral aisles.

For these the blossom sprinkled turf
That floods the lonely graves
When Spring rolls in her sea-green
surf
In flowery foaming waves.

Two paths lead upward from below,
And angels wait above,
Who count each burning life-drop's
flow,
Each falling tear of love.

Though from the hero's bleeding
breast
Her pulses freedom drew,
Though the white lilies on her crest,
Sprang from that scarlet dew,

While valor's haughty champions wait
Till all their scars are shown,
Love walks—unchallenged—through
the gate,
To sit beside the throne."

The Vermiform Appendix and Appendicitis.

By A. A. YOUNG, M. D., Newark, N. Y.

IT IS my purpose in this paper on the appendix and appendicitis, to present a few thoughts upon this most important subject, from the standpoint of a country practitioner, who must meet and treat these cases without the aid of an expert or the advantages of an emergency hospital. In country practice, oftentimes the fine spun theories of the expert must be brushed away like the webs of the spider by the hands of emergency.

1. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

If in this paper, views are expressed which are antagonistic to those usually advanced, let me remind you that amongst chaff some wheat may be found. A brief anatomical review of the appendix and its environment will serve as an introduction.

I will begin by observing that the vermiform appendix is a worm-like process attached to the cecum near its lower and posterior border, at which point the cecum and appendix communicate by means of an opening which is guarded in some degree by a narrowing of the tube near the point of attachment and also by a peculiar valvular arrangement at this orifice. The appendix, from its attachment to the cecum, passes downward and inward toward the median line of the body; it is curved upon itself, which curvature is apparently produced by thickening and increased density of its wall upon the concave side.

The appendix is composed of a tough, thick and elastic membrane, a portion of which is made up of involuntary muscular fibers similar to those found in other portions of the intestinal tract. The whole organ also is usually enclosed in a fold of the peritoneum, which serves as a protection to it and an aid in the performance of its function. The normal substance found within the appendix is an exudate coming from the solitary glands which are an integral part of the organ itself. This exudate, when vitiated, doubtless becomes a leading factor in the development of appendicitis.

The cecum, to which the appendix is attached and of which it forms a part, is made up in a similar manner with muscular fibers and solitary glands having similar functions. This organ upon its inferior surface is blind, save as it communicates with the appendix, while its upper border joins upon and communicates with the ascending colon. It will also be observed that the opening of the cecum into the colon is looking upward, and at this juncture the ileum enters and discharges its contents more or less digested into the cecum. Along the sides of the cecum are found the beginnings of fibrous bands which extend upward and are continuous along the entire length of the colon on either side. These bands act as shir-strings to the colon, forming little pockets or sacs, the apparent use of which is to carry along the intestinal contents toward their point of exit. Such function is clearly indicated by the appearance of the normal feces when ejected from the body. The fecal mass as you have observed, contains markings, corresponding to these pockets upon its surface, or the feces may be composed of little masses corresponding to each

fold, either adherent or nonadherent. These masses and markings clearly indicate what function each pocket performs—namely, that of catching the disintegrating fecal mass which is forced upward from the cecum by the normal action of the appendix, aided by the action of the cecum itself, and carrying such masses along the course of the colon to the rectum. It seems but reasonable to infer that the tendency to disintegration of the fecal mass within the cecum must depend largely upon its contact and admixture with the normal excreta coming from the solitary glands, which are found adjacent to the fecal mass and within the appendix.

Considering the anatomy of the appendix, inferentially, it has at least two functions—namely:

First.—To furnish a fluid which is an important element in the process of digestion, either mechanically as a lubricant or chemico-vitally as a digestant and solvent.

Second.—It acts as a reservoir for the accumulating gas in and about the cecum, which gas when accumulated in sufficient quantities distends the appendix and stimulates it to forcible contraction, thus forcing the gas into the cecum, which gas in turn forces the fecal mass upward, lodging it in the folds of the colon above. It has been said that the appendix is a useless member, that people live as well and as healthful after its amputation as they did before it; this may be true, but the cecum which is composed of similar tissue increases its muscular power and glandular function in proportion to the increased work; it thus compensates in a measure for the loss of the appendix. From a mechanical standpoint the curvature of the appendix, by a fibrous band, has its value, for the contraction of the muscular fibers of this organ gives to the wall on the convex side a lifting as well as a lateral motion without materially impairing its function as a reservoir for the accumulated gases, while favoring materially the elimination of the exudate from the solitary glands.

As to the etiology of appendicitis little can be said. The disease may be caused by traumatism, by constipation, by indiscretions in diet, by the entrance of a foreign body into the canal, by fecal concretions, and yet at other times inflammatory action has been induced with the conditions just stated wanting; it is possible then, and to me seems probable that such inflammatory action, as a rule, is induced by the activity and development of some specific microorganisms within the appendix and that the

vitiated exudate from the solitary glands therein forming the menstruum in which the reproduction of such organisms take place.

For purposes of treatment two forms of appendicitis may be recognised—namely, catarrhal and ulcerative; but to my mind the primary cause of the inflammatory action in each case is the growth and reproduction of specific microorganisms within the cecum and appendix, and that the fecal masses, or other inanimate foreign bodies, within the appendix are coincidences not causes of the pathological changes. It will be observed that nature endeavors to limit in extent all exudations, whether mucoid or purulent, by producing thickening and adhesions of the inflamed parts to the surrounding tissues. Such adhesions usually precede pus formation, thus forming a circumscribed abscess. Such abscesses will point somewhere and that will be toward the line of least resistance, and that line extends toward the cecum when that organ is free from fecal accumulation.

The indications for treatment then are two-fold:

First.—To limit in extent or check entirely inflammatory action and prevent, as far as possible, mucoid and especially pus formation.

Second.—To eliminate all foreign substances, whether animate or inanimate, that produce directly or indirectly pathological changes.

The methods of treatment of appendicitis are various and they correspond to the individual ideas of the attending physician, such ideas being based upon individual observation or upon information obtained from "authorities." The treatment in vogue may be classed as surgical, medical and medico-surgical.

Several years ago before a differential diagnosis had been established and the action known as localised peritonitis, opium was the sheet-anchor; it must be given in heroic doses. The drug did doubtless prolong life and relieve pain and possibly checked pus formation, but it caused the fecal concretions, pus, etc., to remain within their bed and keep active, though in less degree, the pathological changes until death ended all. It used to be said "opium is our sheet anchor, but the patient will probably die," a confession of its worthlessness, save as an agent to relieve pain. After a differential diagnosis had become established opium began to go into disuse, though some practitioners still cling tenaciously to it and prescribe it in heroic doses. This

drug does produce an apparent improvement, but the final results are more disastrous because of obscured conditions due to opium.

Following the advent of a differential diagnosis the pendulum swung to the surgical side and unfortunate was that practitioner who dared question its efficacy. Appendicitis became a by-word, its mention meant an operation; moreover when unmentionable because of its absence, such operations were advised even upon healthful babies, because, it was alleged, the appendix was of no use. But the pendulum is swinging back and soon surgical intervention will assume its true relation with other agencies in dealing with this malady. Surgical intervention erred in that it assumed to be the treatment while it was only auxiliary. The removal of the appendix with the accumulated débris is not enough; the cecum and colon should be cleansed of their accumulation prior to surgical interference in order that further accumulation may be readily passed off through the intestinal canal. Preparation before surgical intervention therefore is essential.

But if surgical intervention be called for and must precede the preparation, then clear the cecum and ascending colon of their contents by manipulation before closing the wound, thus giving the remaining and yet-to-be-formed débris a chance to escape.

Whether the existing cause of appendicitis be fecal accumulations, foreign bodies or accumulated excreta from the glands of the appendix matters but little so far as rational treatment is concerned; the object sought is the elimination from the diseased tissues all of the sources of irritation of every nature. Individual judgment must decide in each individual case the proper remedies and proper methods of treatment. External applications as leeches, cold compresses, poultices, blisters and similar procedures over the cecal region, as recommended by some, and still used by many, have no place in rational therapeutics; this statement after a moment's reflection must appear axiomatic. The first condition of successful treatment is absolute rest, and this condition excludes active catharsis, connected with which comes the danger of perforation of the diseased tissues.

Bearing in mind the pathology of appendicitis, bearing in mind the fact that nature does much toward repair and restoration of the infected parts, the treatment then becomes very much simplified. In accordance with this idea a treatment has been

devised which has produced most favorable results. The cleaning out of the intestinal canal nature demands, and to see that it is done and done early and well is the duty of the physician, and for this purpose a personal supervision of the patient and the work is essential; a work that requires thoroughness and gentleness. This part of the treatment may be well accomplished by the use of the long tube which may be a soft rubber one, or a metallic one with the proper curvatures. The tube must be passed upward at least to the angle formed by the juncture of the transverse and descending colon; the patient to recline upon the right side with the hips well elevated; position here is essential and the reason for it is very apparent.

By means of the long tube the organs just mentioned can be cleansed by filling with water, impregnated with some good antiseptic material, preferably creolin or permanganate of potassium. Antiseptics are necessary, for following an attack of appendicitis, however mild, the intestinal canal is in a septic condition and from this there may be general systemic infection independent of the diseased appendicular tissues. This process of lavage may be repeated several times daily if necessary, as the severity of the case demands without producing material harm, depressing the vital forces, or interfering with the reparative processes. Thoroughness is essential to success.

Having first thoroughly cleansed the colon by lavage, then attention should be directed to the emptying of the upper portion of the alimentary canal; that the lower portion needs first attention is obvious, for a forcible ejection beginning from above increases the tension below and increases the liability to rupture of the affected part.

The entire canal must be kept scrupulously clean during the active stage of the affection which activity is limited as to duration; for this purpose solid foods, so-called, must be prohibited and it is questionable if even liquid foods are advisable. What is a food in a normal condition is quite likely to become an irritant, if not a poison, in an abnormal condition of the digestive apparatus; nourishment may be a good thing, but it must be administered with discretion.

Since the body is composed largely of water, since it requires no labor on the part of the digestive apparatus to absorb it when taken, since life may be supported for days by this element alone, why withhold it? It serves two most excellent purposes, viz.: that of food and also as a flushing and cleansing agent. For

obvious reasons the normal saline solution might be preferred and substituted for water with advantage.

Of the various agents that have been used and served a good purpose, first, the oils, both castor and olive, rank high; they may be given alternately or combined; their action is largely a mechanical one, serving to lubricate and dissolve the intestinal contents; and they also form a barrier along the intestinal wall preventing, in some degree, the absorption of septic matter. Second, as a digestant and solvent, and perhaps as an intestinal stimulant, purified pig's gall ranks among the first and its use from a physiological standpoint, is clearly indicated in all catarrhal affections of the intestinal tract, including appendicitis. It being one of the normal agents in the process of digestion and having some antiseptic properties it can do no harm, but, on the other hand, it must be an agent for good. If pig's gall softens the fecal matter, if it stimulate to activity, without fatigue, the muscular tissue of the bowel, if it be an antiseptic that prevents or retards germ development, and these properties this agent is alleged to have, its uses in appendicitis is certainly suggestive and practically it has been found equal to the suggestion.

Agents other than those which have been enumerated may have their merits, may have their advantages even, and the selecting of them must be left to the individual judgment of the prescriber. The routes for attaining the same goal may be various, but the goal sought for in each case is the same—namely, complete elimination of all intestinal contents, whether normal or abnormal, including the products of inflammatory action about the cecum.

It is impossible, however, to secure perfect elimination of all intestinal contents at once; intestinal antiseptics are therefore suggested and of the number used sulphocarbolate of soda combined with bichloride of mercury is preferred. The line of treatment cannot be a fixed or routine one, it must be varied to meet the varying pathological conditions, and unfortunate must he be, as well as the unfortunate patient, who endeavors to treat appendicitis by name and fails to recognise preëxisting conditions.

In the earlier stages, prior to pus formation, the treatment is plain; it must be prophylactic, consisting of intestinal cleansing, followed by intestinal rest; but after pus formation a decision must be made between the medical, the surgical or the medico-surgical treatments, a decision, the reaching of which costs the country practitioner no little anxiety.

The accumulated *débris* in and about the appendix must be eliminated, and the "how" is the great problem for solution. In solving this problem the fact must be recognised that the physician's or surgeon's manipulations must be an aid to eliminative processes only, and such manipulations must be in harmony with nature's methods and such eliminative methods are in no wise connected with reparative processes.

Nature's route for the elimination of *débris* seems to be by way of the intestinal canal. Clear the cecum and colon of all fecal accumulations and nature will, in a majority of cases, care for the rest. "Authorities" must not be followed like sheep that follow the "bell-wether;" individual action and judgment must enter into each individual case. Commonsense methods must dictate, must rule, then shall we have fewer "successful operations" that end in successful deaths.

22 EAST MILLER STREET.

Normal Salt Solution by Hypodermoclysis, with Report of an Unusual Case.

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THE therapeutic value of salt solution is now so well established, and its merits generally recognised, that it would seem time ill spent to review so commonplace a subject. However, I will venture to speak briefly of some of the methods of usage and their application in a few diseases, and conclude by reviewing the history of a very unique case which recently came under my observation, which I think you will agree was a valuable object lesson.

It is now quite generally conceded that its therapeutic value is not simply limited to the narrow confines of anemia, from blood loss or hemorrhage, as was first suggested, but today, diseases, acute and chronic, in great numbers, are all very much benefited by its judicious use. The methods usually adopted for its administration, for any given case, are, as a rule, one or all, of the following—namely, hypodermoclysis, intravenous and enteroclysis.

The method of administration is usually governed by the specific indications of the case in hand, and whether

immediate or less rapid results are called for. So much might be said of the particular advantages of each one of these methods, that a general review of them all would carry me beyond the limits of my memoranda. There are, however, a few points concerning the use of the saline solution which are common to all. I speak now with special reference as to its use subcutaneously.

I have referred to the first introduction of the salt solution, as a measure of especial use in hemorrhage from any cause. This has been in use for years and with the most satisfactory results. It is not simply of value in post operative cases, to restore the blood loss, but also in ante operative cases, like gunshot wounds, fractures, simple and compound, and other injuries, attended with shock and hemorrhage. It would seem at first thought, that this would be dangerous on account of increasing the blood pressure and thereby increasing the hemorrhage during the operation, but experience has proven the utility of a small or moderate hypodermoclysis of four to six ounces.

Salt solution subcutaneously has been used with advantage in cases of hemorrhage from gastric ulcer, as well as hemorrhage from the lung.

Dr. W. H. Thompson has had brilliant results in hemorrhage from typhoid ulcer. In infancy and children, its most valued use is perhaps in enterocolitis, attended with profuse watery discharges. Here the warm salt solution, given as high up enemata, not simply as a bowel wash to eliminate poison, but the absorption of a part of this fluid into the circulation and the stimulating effect of the heat, are very important. I would say, however, that in these cases, the combined use of salt solution, both by enemata and subcutaneously, is more efficacious.

Dawbarn, in 1892, was the first to call the attention of the profession to the use of saline solution in these cases. Since then it has been taken up and faithfully tried all over the world, and with results that show favorably, if they do not surpass any other therapeutic measure yet suggested for them. This treatment has been much in vogue in our own city for the last few years, and has been a common practice in the Children's Summer Hospitals. Dr. Sherman has reported to me personally the singular and unusually favorable termination of some of these cases by the use of the treatment which, in his judgment, would have proved fatal without it. He was the first to suggest to me a few years ago the advantage of small doses of the salt solution given subcutaneously, and he also called

my attention to the importance of continuous peripheral massage from the very moment the fluid is introduced. This procedure is plain to you all, for it hastens absorption and prevents the formation of too much infiltration at the site of injection. Since his report, other writers have mentioned the same point. Kemp states that sloughing has occurred in the breasts, from a too large and too rapid injection of saline solution.¹

Kemp has devoted much time studying the use of salt solution and has made experimental research on the lower animals, and has also contributed several very able papers during the past year, one in *Medical Record*, April 14, on Observations and Suggestions Concerning Hypodermoclysis, and a serial paper appearing in *Pediatrics*, October, November and December, 1900, on The Normal Saline Solution in Scarlatina Nephritis. To Kemp I am indebted for a few of the following interesting points, which he has had the pleasure of observing and reporting. He made a special study of the time taken by all three methods, from the moment of introduction till its appearance in the urine. To make his analyses more accurate, and his findings more positive, he added a small amount of a weak solution of potassium ferrocyanide to the saline solution, and the reappearance of this combination was discovered in the urine by means of the Prussian blue reaction with chloride of iron, in the following order: intravenous injection of $\frac{1}{2}$ ounce of solution gave increased renal secretion and Prussian blue reaction in $1\frac{1}{2}$ to 2 minutes. The urine drops were carefully counted and registered so as to avoid possible error. The quantity infused was so small as to have no appreciable effect on the general circulation. A subcutaneous injection of the same chemical combination caused an increased renal secretion, and its appearance in the urine in $3\frac{1}{2}$ to 4 minutes. Infusion into the bowel of a small amount of saline solution, to which was added the same weak solution of potassium ferrocyanide, the urinary secretions were increased and the reaction appeared in the urine in 20 minutes.

These observations teach us two very important lessons: (1) the renal stimulant or the diuretic effect of the saline solution; (2) the length of time required by the use of this diuretic.

Of all the conditions in which the solution is used, it seems to me that essentially the effect in the system can be summarised under two heads, viz.: (1) increased volume in the vascular

1. See my report of case.

system; (2) its pronounced and positive diuretic effect. The second, however, does in a measure depend upon the first.

In the judgment of many who have given special thought to salt solution, its strong and paramount value is its power to open up one of the main avenues of excretion, *i. e.*, the kidneys, and in this respect it perhaps has no companion in its class.

All diseases productive of toxins in the circulation call for blood washing and blood cleansing. Coincident with these is the need for elimination or out pouring of poisons through renal stimulation. Edema following nephritis, whether acute, a sequelæ of any of the exanthemata, or chronic from cardiac or renal insufficiency, is materially reduced. Pulmonary edema or effusion in any of the serous sacs from pleurisy, peritonitis or pericarditis, have also been relieved. The unloading of the fluid and toxins in the blood from the arterial and venous circulation in turn, calls for an unloading of the fluids of these sacs, or the water soaked cellular tissue, into the lymphatic system, thence into the general circulation. Poisons in the blood, whether the products of tissue metabolism, causing uremia or toxemia, or alkaloidal poisons, such as belladonna or opium, are also known to be benefited.

A matter of great importance aside from the rapidity of its action, is the relatively small amounts that can be injected subcutaneously, which is followed by a very copious diuresis. Most writers now agree that the quantities formerly given in this manner, say from one to three pints, are entirely unnecessary, and that an equally specific effect can be produced upon the renal organs, causing them to pour out urine in amount many times greater than the quantity of fluid injected. This has its advantages over the other method, in that the time taken to do the operation is curtailed, which is of especial importance in a restless crying baby.

Lenhartz, *Deutsche Archives fur Klin. Med.*, advocates frequently repeated injections subcutaneously. From 2 to 6 ounces every three to four hours, has a better diuretic effect and cause less strain on the kidneys than a pint given several times daily.

Kemp also has observed 3 iii.-iv. injected produce a secretion nearly five times that quantity within four hours, and blood and albumin disappear and casts diminish. It must be remembered that in certain diseases attended with low blood pressure or in shock, the lymphatic absorption of the fluid is very slow, and even small injections take considerable time for absorption.

Shakespeare in his report to the United States Government on Asiatic cholera, sums up the effect of salt solution on the system, which seems to cover all: (1) it supplies fluid to the anhydremic blood; (2) makes good the loss of heat; (3) it dilutes the thickened tissue fluids; (4) it stimulates the kidneys to action; (5) it aids in the elimination of toxic matters circulating in the blood and exercising their baneful effects on the tissues, particularly on the nervous system.

Simon Robbaski, aged 41 years; Polish. Lived in this country eight years; laborer; early history and family history negative; married man—wife and six children. Five years ago had gonorrhea. Well up to five months ago when he noticed that his work caused considerable dyspnea with precordial pains. His feet began to swell. Obligated to give up work and confined in his bed continuously for three months. He then managed to regain his feet again, and in his eagerness to earn a livelihood for his family, he attempted to work. He managed to keep up for two weeks when he was obliged to take to his bed again, from great epigastric and precordial pains, but particularly the former. The edema of his lower extremities was now as bad as ever and his physician sent him to the general hospital.

Upon entrance his appearance was that of one in great distress. His pains in the epigastric region were most marked, particularly upon the slightest physical exertion. His lower extremities and back were very edematous. Physical examination of the heart showed both mitral and aortic disease with dilatation. It was thought not hypertrophy, the apical impulse was very feeble. The urine examination—24 hours—450 c.c., dark amber; odor, normal; density, 1031—total solids, 32.50 gms. Indican increased; urea, 14.85 gms.; uric acid present; chlorides, normal; bile pigment, absent; sugar absent; albumen present.

Microscope,—numerous casts { Hyalin casts.
Granular casts.
Epithelial casts.

Many leucocytes (pus), a few red blood cells, some small round cells.

With these findings, we realised the seriousness and really the hopelessness of the man's condition. However, we were determined to help him by temporarily relieving him, thereby prolonging his life.

His heart was supported with strychnin sulphate, combined with infusion of digitalis and acetate of potash and the occasional use of salt solution per rectum. Diet restricted to milk and absolute rest. These therapeutic measures were continued for a short time, with absolutely no apparent improvement. Diuretin, in gr. xv., combined with apocynum cannabinum, gr. xv., were now substituted, the latter being favorably known as the vegetable trochar in anasarca conditions.

These two remedies were religiously administered, but with results that were anything but encouraging. The case was growing worse. Several times he had sinking spells, requiring prompt treatment by hypodermics. On the morning of June 26, the man's hands and face were cyanotic; arms and legs cold, respiration labored and pulseless at wrist; in fact, his condition was so desperate that Dr. Hopkins very wisely suggested a last resort measure, the use of normal saline solution subcutaneously.

His lungs were water logged; in fact, his face, arms and body generally were swollen almost beyond recognition. At 6 o'clock, June 26, Dr. McCarthy, the house physician, administered nearly a pint of normal saline solution in the left thorax, introducing the needle at a point about two inches below the left nipple, using a fountain syringe, the whole appliance, including the solution having been previously sterilised. The seance requiring about 15 minutes, peripheral massage was applied continuously. The exact measurement of the urinary secretion for the 24 hours preceding this test, was only 210 c.c., or 2-5 pint. At 6.35 p.m., or 20 minutes later, the patient voided 30 c.c., or 1 ounce of neutral urine with a sp. gr. of 1024. Beginning now, the experience for the next few days was the most phenomenal, I have ever witnessed. At 8 o'clock that evening, or in 1 hour and 25 minutes, he voided 450 c.c. of neutral urine, with a density of 1006—a drop of 18. At 8.30, or 30 minutes later, another 450 c.c.; at 9.30, 420 c.c.; at 10, 490 c.c.; at 10.40, 540 c.c.; 11.20, 570 c.c.; 11.45, 470 c.c.; 11.55, 150 c.c.; a total in exactly 6 hours of 3540 c.c., or 7 pints.

This unusual output did not terminate here, but continued with unceasing flow through the several days following. The total excretion of the first 24 hours following the administration of the salt solution was 6210 c.c., or exactly 6000 c.c. more than during the 24 hours preceding. The second 24 hours resulted in 6480 c.c., or 270 c.c. more than the first 24 hours. The third 24 hours, 4170 c.c. The fourth 24 hours, the quantity dropped to 1650 c.c.; or approximately a normal output. The total excretion of urine in the 72 hours following the hypodermoclysis was 16,860 c.c. or 33 2-5 pints. The man lost nearly 35 pounds in three days. So rapid was his loss in rotundity, that at the end of a week, he had shrunk to his real "flesh and bones" and one would have hardly known him to be the same man. It is interesting also to note the swiftness with which his kidneys acted. It will be observed from the foregoing table, that the quantity ranged from 150 c.c. in ten minutes to 570 c.c. in 40 minutes. During the first 24 hours, he was obliged to urinate 18 times, the second 24 hours, 36 times, and the third 24 hours, 26 times, or 80 times in 72 hours.

The specific gravity of the urine taken each time ranged from 1001 to 1010 (mostly 1002 to 1006.) The total quantity of urea

in the three days was, first day, 7.32 gms.; second day, 8.75 gms. third day; 6.52 gms.; total, 22.59 gms.

It is also worthy of mention, that during all this drenching our patient partook of very little solid food, and his drink was comparatively trifling. Repeated examinations of his urine during the succeeding weeks of his illness showed a marked improvement. Up until June 28, casts were present, and from June 29 to July 2, four successive days, the microscope examination did not show the presence of casts. The albumin, however, remained stationery. The red blood cells, so plentiful at first, entirely disappeared and the leucocytes were comparatively few. On August 1, our patient returned to his home somewhat improved, but in anything but an enviable state of health.

From the time of his hypodermoclysis until the day of his departure, he had an area $1\frac{1}{2}$ inches long by $\frac{3}{4}$ wide, at point of introduction of fluid, which had sloughed and was covered with what appeared to be a healthy dry scab. About the last of August the patient presented himself to the Erie County Hospital for treatment of this slough, and was cared for surgically by Dr. Clinton.

137 WEST TUPPER STREET.

NOTES ON THE ACTION OF HEROIN AS COMPARED WITH THAT OF
THE OTHER DERIVATIVES OF OPIUM.

IN the *Montreal Medical Journal* for June, 1901, Gillies states that from his experience with the drug the following conclusions may be drawn: Heroin may be regarded as a valuable addition to our therapeutic agents. It is superior to morphin or codein in irritative coughs. In dyspneic conditions it is of special value. As an analgesic it is inferior to morphin, but heroin hydrochloride should have further trial before a definite statement is made in this respect. It is less toxic and therefore more safe than morphin and codein. He is as yet unable to state whether the habit is likely to be formed or not.—*Therapeutic Gazette*.

WE SHOULD always bear in mind the fact that a fractured rib may penetrate into the lung, and, further, that a penetrating wound of the chest, if low down, may involve the peritoneal cavity. In a penetrating wound the outer layer of the pleura may be pierced and the viscera not damaged; the lung may be injured, the pericardium damaged, the heart penetrated or one of the great vessels may be entered.—D'ACOSTA.

Special Contribution.

The Official Report on the Case of President McKinley.

SURGICAL HISTORY.

PRESIDENT WILLIAM McKINLEY, was shot, by Leon F. Czolgosz, in the Temple of Music, at the Pan-American Exposition, Buffalo, N.Y., at about 7 minutes past 4 on the afternoon of Friday, September 6, 1901. Two shots were fired. One bullet struck near the upper part of the sternum, and the other in the left hypochondriac region. The President was immediately conveyed to the Emergency Hospital on the exposition grounds by the motor ambulance, where he arrived at 4.18. Dr. G. McK. Hall and Mr. Edward C. Mann, medical student, of the house staff, were in charge of the ambulance, medical student T. F. Ellis being the driver.

On arrival at the hospital, President McKinley was at once placed upon the table in the operating room and undressed. During the removal of his clothing a bullet fell out and was picked up by Mr. Ellis. Dr. Hall placed a temporary antiseptic dressing over the wounds, and Mr. Mann ordered a nurse to administer 0.01 gm. of morphin and 0.002 gm. of strychnin hypodermically.

Dr. Herman Mynter, who had been telephoned from police headquarters to report immediately at the exposition hospital, was the first surgeon to arrive, at 4.45 o'clock. At that time Drs. P. W. Van Peyma and Joseph Fowler, of Buffalo, and Dr. Edward Wallace Lee, of St. Louis, were present. Dr. Mynter brought with him Dr. Eugene Wasdin, of the United States Marine Hospital Service.

Dr. Mynter inspected the President's wounds, and immediately saw their serious nature. He told the President that it would be necessary to operate, and at once set about making preparations, aided by the house staff and nurses, and Dr. Nelson W. Wilson, Sanitary Officer of the Exposition, who at that time assumed charge of the hospital in the absence of Dr. Roswell Park, the Medical Director of the Exposition. The President's pulse on the arrival of Dr. Mynter was 84; he had no particular pain in the abdomen, and no apparent loss of liver dullness. He was evidently slightly under the influence of the morphin.

Dr. Matthew D. Mann arrived at the hospital at 5.10 p.m., having been telephoned for by Mr. John G. Milburn. He was followed, 5 minutes later, by Dr. John Parmenter.

An examination was at once made, followed by a short consultation between Drs. Mann, Mynter and Wasdin, which resulted in the decision to operate at once. The necessity for the operation was explained to President McKinley, and he

gave his full consent. Immediate operation was decided upon because of the danger of possible continued internal hemorrhage and of the escape of gastric or intestinal contents into the peritoneal cavity, and because the President's pulse was getting weaker. Moreover, the daylight was rapidly failing. Dr. Roswell Park, who, by virtue of his office, had he been present would have performed the operation, was at Niagara Falls, and although a special train had been sent for him, it was uncertain when he would arrive.

Dr. Mann was selected to do the operation, with Dr. Mynter as his associate, by the common consent of the physicians present and at the request of Mr. Milburn, president of the Pan-American Exposition, who stated that he had been requested by President McKinley to select his medical attendants. Dr. Mann selected Drs. Lee and Parmenter as assistants.

At 5.20 Dr. Mann directed the administration of ether to President McKinley, and requested Dr. Wasdin to administer it. Ether was chosen as being, on the whole, the safer anesthetic. While the anesthetic was being given the surgeons who were to take part in the operation prepared their hands and arms by thoroughly scrubbing with soap and water, and immersing them in a solution of bichloride of mercury.

The operation began at 5.29. Dr. Mann stood upon the right-hand side of the patient, with Dr. Parmenter on his righthand side. Dr. Mynter stood upon the lefthand side of the patient, and on his right was Dr. Lee. To Drs. Parmenter and Lee were assigned the duties of sponging and the care of the instruments. Dr. P. M. Rixey, U. S. N., President McKinley's family physician, having been detailed by the President to accompany Mrs. McKinley to the Milburn home, did not arrive until 5.30, when he gave very efficient service by guiding the rays of the sun to the seat of the operation by aid of a hand-mirror, and later by arranging an electric light. Dr. Roswell Park arrived just as the operation on the stomach was completed, and gave his aid as consultant. Mr. E. C. Mann had charge of the needles, sutures and ligatures. Mr. Simpson, medical student, was at the instrument tray.

The nurses, under the charge of Miss A. C. Walters, superintendent of the hospital, were Miss M. E. Morris and Miss A. D. Barnes, with hands sterilised; Miss Rose Baron, Miss M. A. Shannon and Miss L. C. Dorchester, assistants, and Miss Katherine Simmons attending the anaesthetiser.

Besides those immediately engaged in the operation, there were present Drs. P. W. Van Peyma, Joseph Fowler, D. W. Harrington and Charles G. Stockton, of Buffalo, and Dr. W. D. Storer, of Chicago.

THE OPERATION.

President McKinley took the ether well, and was entirely under its influence in 9 minutes after the beginning of the

anesthetisation. The abdomen was carefully shaved and scrubbed with green soap, and then washed with alcohol and ether and the bichlorid solution.

Inspection showed two wounds made by the bullets. The upper one was between the second and third ribs, a little to the right of the sternum. The use of a probe showed that the skin had not been penetrated, but that the bullet had probably struck a button or some object in the clothing which had deflected it. The lower wound made by the other bullet—a 32 caliber—was on a line drawn from the nipple to the umbilicus. It was about half-way between these points, and about 5 cm. to the left of the median line. A probe showed that this wound extended deeply into the abdominal walls, and that the direction was somewhat downward and outward.

An incision was made from the edge of the ribs downward, passing through the bullet wound and nearly parallel with the long axis of the body. A deep layer of fat was opened, and followed by incision of the fascia and muscles to the peritoneum. After cutting through the skin, a piece of cloth, undoubtedly a bit of the President's clothing, was removed from the track of the bullet, a short distance below the skin.

On opening the peritoneum, the finger was introduced and the anterior wall of the stomach palpated. An opening was discovered which would not quite admit the index finger. This opening was located near the greater curvature of the stomach, and about 2 cm. from the attachment of the omentum; its edges were clean-cut and did not appear to be much injured.

The stomach was drawn up into the operation wound, and the perforation very slightly enlarged. The finger was then introduced and the contents of the stomach palpated. This was done to see if the stomach contained food, and also with the hope that possibly the bullet might be in the stomach. The stomach was found to be half full of liquid food, but no evidence of the ball was discovered. In pulling up the stomach a small amount of liquid contents escaped, together with a good deal of gas. The tissues around the wound were carefully irrigated with hot salt solution and dried with gauze pads. The perforation in the anterior stomach wall was then closed with a double row of silk sutures (Czerny-Lembert). The sutures were not interrupted with each stitch, but four stitches were introduced before the ends were tied. The loop was then cut off and the suture continued. About eight stitches were used in each row. The silk used was fine black silk, the needle being a straight, round sewing needle.

In order to examine the posterior wall of the stomach, it was necessary to enlarge the incision, which now reached about 15 cm. in length. The omentum and transverse colon were pulled well out of the abdomen. The omentum was enormously thickened with fat and very rigid. In order to reach the back wall of the stomach, it was necessary to divide about 4 inches of the gastrocolic omentum, the cut ends being tied with strong black

silk in two masses on each side. In this way the stomach could be drawn up in the operation wound, and the bullet wound in its posterior wall reached. This opening was somewhat larger than that in the anterior wall of the stomach, and had frayed and blood-infiltrated edges. Its exact location was impossible to determine, but it appeared to be near the larger curvature.

This opening was closed in the same way as the anterior wound, but with great difficulty, as the opening was down at the bottom of a deep pocket. A short curved surgical needle was necessary here. Little or no gastric contents appeared around this opening, but after it had been closed the parts were carefully irrigated with hot salt solution.

The operation on the stomach being now finished, Dr. Mann introduced his arm so as to palpate carefully all the deep structures behind the stomach. No trace of the bullet or of the further track of the bullet could be found. As the introduction of the hand in this way seemed to have a bad influence on the President's pulse, prolonged search for further injury done by the bullet or for the bullet itself was desisted from. The folds of the intestine which had been below the stomach were inspected for injury, but none was found. The entire gut was not removed from the abdomen for inspection, as the location of the wound seemed to exclude its injury. To have made a satisfactory search for wounds in the President's back, it would have been necessary to have entirely eviscerated him. As he was already suffering from shock, this was not considered justifiable, and might have caused his death on the operating table.

Before closing the abdominal wound, Dr. Mann asked each of the surgeons present, whether he was entirely satisfied that everything had been done which should be done and whether he had any further suggestions to make. Each replied that he was satisfied. The question of drainage was also discussed. Dr. Mynter was in favor of a Mikulicz drain being placed down behind the stomach-wall. Dr. Mann, with the concurrence of the other surgeons, decided against this as being unnecessary.

As the last step in the operation, the tissues around the bullet track in the abdominal wall were trimmed, in order to remove any tissue which might be infected. The abdominal wound was then closed with seven through-and-through silkworm-gut sutures, drawn only moderately tight, the superior layer of the fascia of the rectus muscle being joined with buried catgut. The edges of the skin were brought together by fine catgut sutures. Where the bullet had entered there was slight gaping of the tissues, but it was not thought advisable to close this tightly, as it might allow of some drainage. The wound was then washed with hydrogen dioxide and covered with aristol powder and dressed with sterilised gauze and cotton, which were held in place with adhesive straps. Over all was put an abdominal bandage.

The President bore the operation very well. The time from the beginning of the administration of the anesthetic until its

discontinuance was exactly an hour and 31 minutes; the operation was completed at 6.50 p.m., having lasted from the time of the first incision an hour and 21 minutes. At the beginning of the operation President McKinley's pulse was 84. At 5.38, 0.002 gm. of strychnine was administered hypodermically. At 5.55 the respiration was 32 and the pulse 84—both good in character. At 6.09 the pulse was 88. At 6.20 it was 102, fair in character; respiration, 39. At 6.22, 1.50 gm. of brandy was administered hypodermically. At 6.48 the pulse was 124, the tension good, but quick; respiration, 36. At 7.01, after the bandage was applied, the pulse was 122 and the respiration 32. At 7.17, 0.004 gm. of morphine was administered hypodermically.

At 7.32 the patient was removed from the hospital in the ambulance. Dr. Rixey asked Drs. Park and Wasdin to go in the ambulance, as his duty called him to go at once to inform Mrs. McKinley of her husband's condition and to prepare a room for his reception. Drs. Mann and Mynter, with friends of the President, followed in carriages immediately after. President McKinley had not then recovered from the anesthetic. He bore the journey to Mr. Milburn's house exceedingly well, but it was found necessary to give him a small hypodermic injection of morphine during the transit, as he was becoming very restless. On arrival at the house of Mr. Milburn, 1168 Delaware Avenue, he was removed from the ambulance on the stretcher, and carried to a room in the northwest corner of the house, where a hospital bed had been prepared for him.

REMARKS ON THE OPERATION.

BY MATTHEW D. MANN, M. D.

The difficulties of the operation were very great, owing partly to the want of retractors and to the failing light. The setting sun shone directly into the room, but not into the wound. The windows were low and covered with awnings. After Dr. Rixey aided us with a hand mirror, the light was better. Toward the end of the time a movable electric light with reflector was put in use. The greatest difficulty was the great size of President McKinley's abdomen and the amount of fat present. This necessitated working at the bottom of a deep hole, especially when suturing the posterior wall of the stomach.

The operation was rendered possible and greatly facilitated by a good operating table and the other appliances of a hospital, and by the presence of many trained nurses and assistants. Still, the hospital was only equipped for minor emergency work, and had but a moderate supply of instruments. Unfortunately, when called I was not told what I was wanted for, and went to the exposition grounds entirely unprepared. Dr. Mynter had his large pocket case, the contents of which were of great use.

As has already been noted, further search for the bullet was rendered inadvisable by the President's condition. The autopsy shows

that it could not have been found, and that the injuries inflicted by the bullet after it passed through the stomach, were of such a nature as to render impossible and unnecessary any further surgical procedure. A bullet after it ceases to move does little harm. We were often asked why, after the operation, we did not use the *x*-ray to find the bullet. There were several reasons for this. In the first place, there were, at no time any signs that the bullet was doing harm. To have used the *x*-ray simply to have satisfied our curiosity would not have been warrantable, as it would have greatly disturbed and annoyed the patient, and would have subjected him also to a certain risk. Had there been signs of abscess-formation, then the rays could and would have been used.

My reason for not draining was that there was nothing to drain. There had been no bleeding nor oozing; there was nothing to make any discharge or secretion; the parts were presumably free from infection, and were carefully washed with salt solution. As there was no peritonitis and the abdomen was found post mortem to be sterile, we may safely conclude that no drainage could have been provided which would have accomplished anything. My experience teaches me never to drain unless there is a very decided indication for it, as a drain may do harm as well as good.

In conclusion, I wish to thank all the gentlemen who so kindly and skilfully assisted me. They were all surgeons of large experience in abdominal surgery, and their aid and advice were most valuable. Especially I wish to acknowledge my great obligation to my associate, Dr. Mynter. Not only was he an assistant, but he was much more, and helped me greatly by his skill and, as a consultant, with his good judgment and extensive knowledge of abdominal work. Although called first, he waived his claim, and generously placed the case in my hands, willingly assuming his share of the responsibility.

The anesthetic was most carefully administered by Dr. Wasdin, and the knowledge that he had charge of this very important duty relieved me of any anxiety on that score.

In the eventful week that followed the operation, Dr. Park and Dr. McBurney were towers of strength in helping to decide the many difficult questions which came up.

Dr. Rixey was in constant charge of the sick-room, aided later by Dr. Wasdin, who was detailed for this special duty. Both were unremitting in their care, and faithful to the end.

Dr. Stockton helped us in the last three days with the highest skill and best judgment.

Never, I am sure, under like circumstances, was there a more harmonious or better-agreed band of consultants. That our best endeavors failed was, I believe, no fault of ours; but it must be an ever-living and keen regret to each one of us, that we were not allowed the privilege of saving so noble a man, so attractive a patient, and so useful a life.

THE AFTER-TREATMENT.

When put to bed the President was in fair condition: pulse, 127; temperature, 100.6°; respiration, 30. The nurses on duty were Miss K. R. Simmons and Miss A. D. Barnes, from the Emergency Hospital. Soon after his arrival, at 8.25, he was given morphine, 0.016 gm., hypodermically. There was slight nausea. The pulse soon improved. During the evening the patient slept at intervals, vomiting occasionally, but rallied satisfactorily. A slight discoloration of the dressings was noted at 10.45. There was occasional and slight pain. Ninety c.c. of urine was voided, and an enema of salt solution given and retained.

Second Day, Saturday, September 7.

After midnight the patient slept a good deal; he was free from pain and quite comfortable.

At 6 a.m., the temperature was 102°; pulse, 110; respiration, 24.

Gas in large quantities was expelled from the bowels. A saline enema was given as before. Miss Simmons and Miss Barnes were replaced by Miss Maud Mohan and Miss Jane Connolly. Miss E. Hunt, of San Francisco, Cal., Mrs. McKinley's nurse, also rendered assistance, and Miss Grace Mackenzie, of Baltimore, Md., arrived September 9, and was detailed for regular duty. P. A. Eliot, J. Hodgins and Ernest Vollmeyer, of the U. S. A. Hospital Corps, were detailed as orderlies.

During the forenoon, 0.01 gm. of morphine was administered hypodermically.

At 1.15 p.m., a saline enema of 500 c.c. was given. As the pulse was rising, 0.06 gm. of fluid extract of digitalis was injected hypodermically.

The President rested quietly until 6.30 p.m., when he complained of intense pain in the pit of the stomach, and was given 0.008 gm. morphine sulphate hypodermically. He was very restless, but after being sponged rested again.

At 6.30 p.m., the pulse was 130; temperature, 102.5°; respiration, 29.

During the day the digitalis, morphine and saline enemas were kept up at regular intervals; 4 gm. of somatose was added to the water at 10.30 p.m. At 11.15 p.m. the President passed from the bowels 240 c.c. of a greenish colored fluid and some particles of fecal matter.

The total amount of urine for 24 hours was 270 c.c.

FIRST URINALYSIS, BY DR. H. G. MATZINGER.

Quantity	30 cc.
Color	dark amber.
Reaction	strongly acid.
Urea	0.028 gm. per 1 c.c. of urine.
Albumin	a trace.
Phosphates and chlorides	normal.
Sugar	none.
Indican	very small amount.

Microscopic Examination.—The sediment obtained by centrifuge shows a large amount of large and small epithelial cells with some leukocytes and occasional red cells. There is a comparatively large number of hyaline casts, principally small, with some finely granular ones; also an occasional fibrinous one. The amount of sediment is large for the quantity of urine submitted. There were no crystals in the sediment.

Third Day, Sunday, September 8.

During the early morning the President slept a good deal, but was restless, and at times confused and a little chilly. On the whole, he passed a fairly good night.

He expelled a little gas and brown fluid from the rectum. The digitalis was continued, and at 7.45 a.m. 0.002 gm. of strychnine were given hypodermically. At 8.20 a.m. he was clear and bright, with the pulse strong and of good character.

The wound was dressed at 8.30, and found in a very satisfactory condition. There was no indication of peritonitis. Pulse, 132; temperature, 102.8°; respiration, 24.

The dressing on the wound was changed because there was some exudation. The bullet track was syringed out with hydrogen dioxide. There was very little foaming, and there were no signs of pus.

At 10.40 a.m., following an enema of epsom salts, glycerine and water, he had a small stool with gas, and another at noon. He was less restless and slept a good deal.

At noon Dr. Charles McBurney joined the medical staff in consultation, having been summoned by Dr. Rixey.

During the day he continued to improve; he slept 4 or 5 hours and his condition was satisfactory.

At 4.45 p.m., he was given a teaspoonful of water by the mouth; also an enema of sweet oil, soap and water. He passed slightly colored fluid with some little fecal matter and mucus. After this he had a small quantity of water by the mouth, and at 6.20 p.m. a nutritive enema of egg, whisky and water, which was partly retained. Digitalis and strychnine were both given during the evening.

At 9 p.m. the President was resting comfortably. The pulse was 130; temperature, 101.6°; respiration, 30.

Four hundred and twenty c.c. of urine was passed during the day.

SECOND URINALYSIS.

Quantity	450 c.c.
Color	amber, slightly turbid
Reaction	strongly acid.
Specific gravity	1.026.
Urea	0.038 gm. per c.c. of urine.
Albumin	mere trace.
Sugar	none.
Indican	abundant.
Sulphates	increased.
Phosphates	somewhat increased.
Chlorides	somewhat increased.

Microscopic Examination.—Microscopic examination of sediment obtained by centrifuge shows fewer organic elements. Some large and small epithelial cells and some leukocytes. Casts are not so abundant as yesterday and are principally of the small finely granular variety. There is a marked diminution in small renal epithelial cells.

Quite a quantity of large crystals of uric acid and bacteria are present.

Fourth Day, Monday, September 9.

Codeia was substituted for morphia, as the pain was less. Digitalis and strychnine were stopped. Nutritive enemata were given at 3.20 a.m., at 4.30 and 10 p.m. Hot water was taken quite freely by the mouth.

Attempts to get good movement of the bowels were successful at noon, when he had a large, light-brown partly-formed stool. This followed a small dose of calomel and a high enema of oxgall.

On the whole, the President's condition improved steadily during the day. He slept a good deal and was fairly comfortable. There was no pain on pressure over the abdomen.

THIRD URINALYSIS.

Quantity received	540 c. c.
Color	amber, slightly turbid.
Specific gravity	1.026,
Albumin	a trace
Indican	not so abundant as yesterday.
Urea	0.047 gm. per c.c. of urine.
Chlorides and phosphates	about normal.
Sulphates	still somewhat high.
Sugar	none.

Microscopic Examination.—Microscopic examination of sediment obtained by centrifuge shows a decrease in the amount of organic elements and an increase of amorphous urates, but fewer crystals of uric acid. Casts are fewer and only the small granular and large hyaline varieties. The proportion of casts is greater. There are very few epithelial cells, mostly of renal type. A large number of cylindroids are found.

Fifth Day, Tuesday, September 10.

Soon after midnight the President had a high enema of soap and water, which was expelled, together with some fecal matter. He took hot water frequently, and slept a good deal.

On awakening he felt very comfortable, and his mind was clear and cheerful. The nutritive enemata were kept up, and water given by the mouth. Had two small stools during the day. The only medicine given was one hypodermic of codeia phosphate, 0.015 gm.

In the evening the dressings were examined, and as there was considerable staining from the discharge, it was thought best to remove four stitches and separate the edges of the wound. A

little slough was observed near the bullet track, covering a space nearly an inch wide, the thickness of the flaps. The separation seemed to extend down to the muscle. The surfaces, except those mentioned, looked healthy, but not granulating. It was supposed that the infection of the wound occurred either from the bullet or from the piece of clothing carried into the wound at the time of the shooting. The parts were thoroughly washed with hydrogen dioxide and packed lightly with gauze, and held together with adhesive straps.

Sixth Day, Wednesday, September 11.

The blood count made by Dr. Wasdin in the evening was as follows:

Leukocytes	6,752
Red cells	3,920,000

A little after midnight, Wednesday morning, the patient was given 4 c.c. of beef juice, the first food taken by the stomach. It seemed to be very acceptable. Nutritive enema was given at 2 a.m.; later there was a yellow stool.

From 4 to 8 c.c. of beef juice was given every 1 to 2 hours during the day. The rectum was becoming irritable, and did not retain the nutritive enemas well.

At 10 a.m. the remaining stitches were removed, the wound separated and dressed. It seemed to be doing well. Most of the sloughing tissue had separated.

The patient slept much during the day, and expressed himself as feeling very comfortable. The only medicine administered was one hypodermic of strychnine.

In the evening he was changed to a fresh bed. Nutritive enemas were continued.

Urine was passed much more freely—750 c.c. in 24 hours.

FOURTH URINALYSIS.

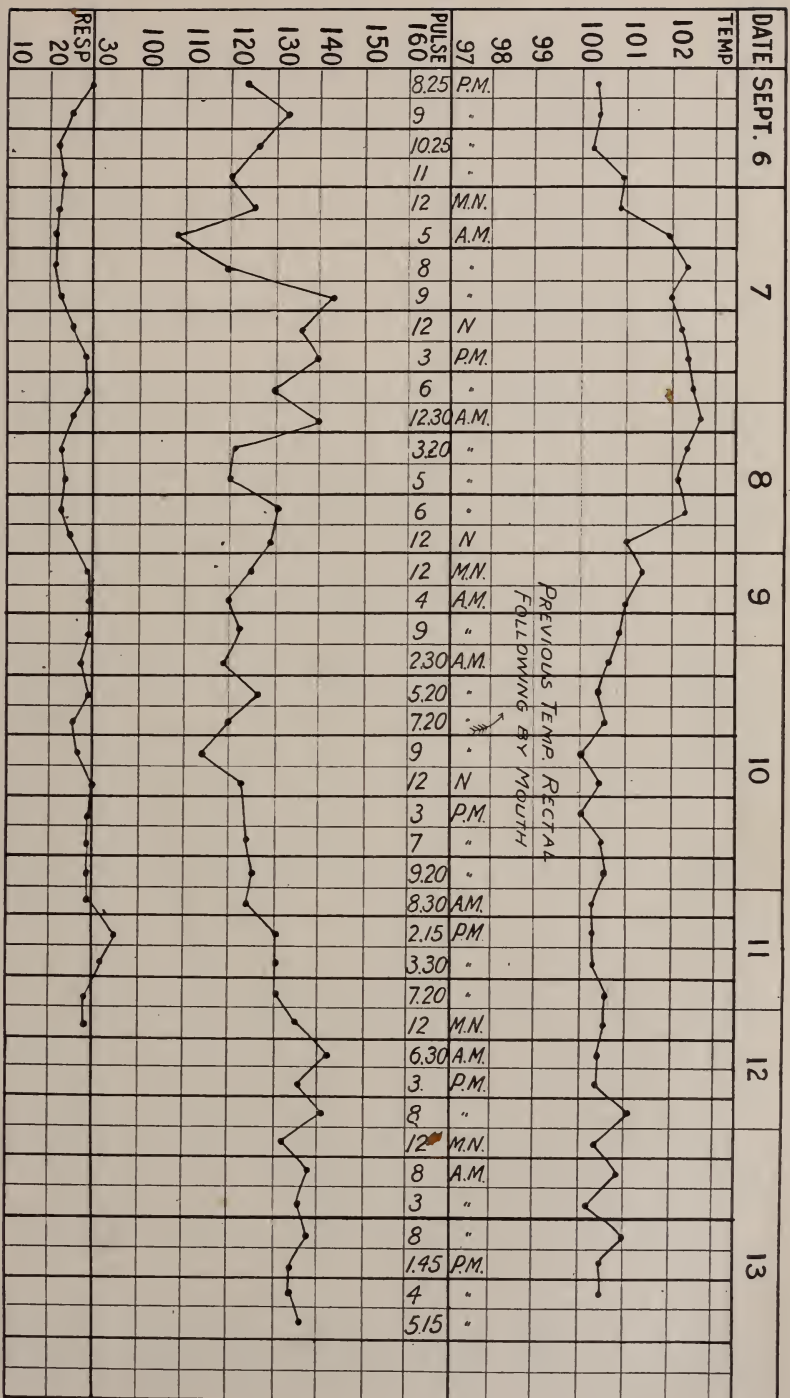
Quantity	82 c.c.
Color	amber, clear.
Specific gravity	1.027.
Reaction	strongly acid.
Albumin	a trace.
Indican	abundant.
Urea	0.04 gm. per 1 c.c. of urine.
E. phosphates and chlorides	normal.
Sulphates	still a little high.

Microscopic Examination.—Microscopic examination of sediment obtained by centrifuge, shows a marked diminution in amount of organic elements, but a great increase in uric acid crystals.

There are very few epithelial cells—mostly of renal type.

There are fewer casts—small and large hyaline—some finely granular.

Cylindroids are more abundant.



[From the American Journal of the Medical Sciences, Lea Brothers & Co.]

CHART OF PRESIDENT MCKINLEY'S TEMPERATURE, PULSE AND RESPIRATION.

Seventh Day, Thursday, September 12.

The President slept a good deal during the night, and awoke in the morning feeling better. The beef juice was continued and increased, and a little chicken broth added to the dietary. He also had a little whiskey and water.

At 8.30 a.m. he had chicken broth, a very small piece of toast and a small cup of coffee. He did not care for the toast, and ate scarcely any of it.

The wound was dressed and washed with a weak solution of iodine and then with hydrogen dioxide. He was given 30 c.c. of castor oil at 9.20 a.m.

The President now seemed at his best and his condition to warrant the favorable prognosis given out. The time for peritonitis and sepsis had passed. The bowels had moved and gas passed freely, showing that there was no obstruction. The tongue was clear, and the appetite increasing; and he seemed to be able to digest food. There was no pain nor tenderness in the abdomen, and he was able to turn easily and sleep on his side. The urine was steadily increasing. His spirits were good and his mind clear, while his pulse, though frequent, was strong and of good quality, and the temperature low.

The analysis of the urine gave no uneasiness as the amount of urea was fair; there was no albumin worth considering, and the casts were rapidly diminishing. There were no more of them than are found in a large percentage of cases following a long operation under ether. The excess of indican was taken to mean merely some intestinal indigestion, and to be of no serious import. The only symptom to cause any uneasiness was the frequency of the pulse. Still, anxiety on this score was relieved by knowing that the President had naturally a rapid pulse and that it was easily excited. The open wound was not considered important. It looked healthy, and, although it would take a long time to heal, in itself it was evidently causing no harm nor was it likely to.

Dr. McBurney left Buffalo for his home in the morning, having arranged to return at once if his presence was desired.

Toward noon it was noticed that the character of the pulse was not quite so good. Infusion of digitalis, 8 c.c., was ordered, and strychnine, 0.002 gm.

It was thought probable that there was some intestinal toxemia, as there had been no free movement from the bowels since food had been begun, the oil having failed to act. Gradually the pulse went to 130, and grew weaker.

Dr. Charles G. Stockton was added to the medical staff in consultation. At 7 p.m. the President was given 0.20 gm. of calomel.

At 9.30 p.m. a second dose of 30 c.c. of castor oil was given, followed by a high enema of oxgall. This resulted in a large, dark semifluid stool, which seemed to exhaust him somewhat. Stimulants were given freely. No more beef juice or food was

given. The pulse grew rapidly worse, but at midnight there seemed some improvement, as bulletin 33 shows. At 11 p.m. 420 c.c. of normal salt solution was given simultaneously.

FIFTH URINALYSIS.

Quantity	132 c.c.
Color	light amber, very turbid.
Specific gravity	1.025.
Reaction	acid.
Albumin	mere trace, if any.
Indican	less.
Urea	0.044 gm. per 1 c.c. of urine.
Sulphates	about normal.
E. phosphates	much increased.
Chlorides	normal.

Microscopic Examination—Microscopic examination of sediment obtained by centrifuge, shows fewer organic elements than the last examination. There is less uric acid and a large amount of amorphous phosphates. Renal casts, about as in the last examination, with very few cylindroids.

Eighth Day, Friday, September 13.

At midnight the pulse was fairly good, 132. Strychnine and whiskey were given at intervals, and hypodermics of camphorated oil.

The wound had been dressed regularly in the manner described three times a day. At 9 a.m. the dressing was changed, and a mixture of balsam of Peru and glycerine put in on gauze after the douching.

Stimulants were continued as before, but more freely. Coffee, 45 c.c., and clam broth, 60 c.c., were given; also liquid peptonoids.

At 8.30, 1.50 gm. of adrenalin was given hypodermically, and repeated at 9.40.

At 10 a.m., nearly 2 pints of normal salt solution were given under the skin, and a pint containing adrenalin at 6 p.m. Nitroglycerine and camphor were also injected at various times, together with brandy and strychnine.

Stimulants as detailed above were used freely all day.

3.30 p.m. Pulse growing weaker.

5.00 p.m. Oxygen given and continued for some hours.

6.30 p.m. Last bulletin, No. 39.

At 6.35 p.m., and again at 7.40, morphine was given hypodermically, as he was very restless and seemed to be suffering.

9.00 p.m. Heart sounds very feeble.

The President continued to sink, becoming weaker and weaker.

At 10.00 p.m., the oxygen was discontinued. The heart sounds were very feeble and consciousness lost.

The President died at 2.15 a.m., September 14.

Drs. E. J. Janeway and W. W. Johnston, who, at the request of Dr. Rixey, had been summoned in consultation, arrived too late, but were present at the autopsy. Dr. McBurney also returned on Friday afternoon.

SIXTH URINALYSIS.

Color	amber, turbid, with phosphates.
Quantity	252 c.c.
Reaction	acid.
Specific gravity	1.023.
Albumin	mere trace, if any.
Urea	0.047 gm. per 1 c.c. urine
Indican	a trace.
E. phosphates	increased.
Chlorides	normal.
Sulphates	a little high.

Microscopic Examination.—Microscopic examination of sediment obtained by centrifuge, before and after clearing, shows no change from yesterday's sample. Casts, hyaline and granular, both large and small, comparatively few. Cylindroids, a few. Crystals, large amount of uric acid, some sodium urate, and in the untreated specimen a large amount of amorphous deposit, principally of phosphates. There are a few epithelial cells, small, granular. Occasional red cells and leukocytes.

REPORT ON THE AUTOPSY.¹

BY HARVEY R. GAYLORD, M. D.,

Pathologist to the New York State Pathological Laboratory.

Ordinary signs of death: ecchymosis in dependent portions of the body. Rigor mortis well marked. Upon the surface of the chest, to the right of the midsternal line, a spot 1 cm. in diameter, dark-red in color, with a slight crust formation covering it, 5.5 cm. from the suprasternal notch; from the right nipple, 10 cm.; from the line of the right nipple, 8.25 cm. Surrounding this spot, at which point there is an evident dissolution of the continuity of the skin, is a discolored area of oval shape extending upward and to the right. In its greatest length it is 11 cm.; and in its greatest width, 6 cm. It extends upward in the direction of the right shoulder. The skin within this area is discolored, greenish-yellow and mottled.

The surface of the abdomen is covered with a surgical dressing, which extends down to the umbilicus and upward to just below the nipples. The innermost layer of cotton is covered or stained with balsam of Peru and blood. On removing this dressing, a wound parallel to, and somewhat to the left of, the median line, is exposed, inserted in which are two layers of gauze, likewise impregnated with balsam of Peru. The wound is 14.5 cm. in length, and is open down to the abdominal muscles. The layer of abdominal fat is 3.75 cm. in thickness. The appearance of the fat is good, a bright yellow in color. No evidence of necrosis or sloughing. In the left margin of the surgical wound, lying 1 cm. to the right of a line drawn from the umbilicus to the left nipple, 15.5 cm. from the nipple and 16.5 cm. from the umbilicus is a partly healed indentation of the skin, and an excavation of the fat immediately beneath it (this is the site of the entry of the

1. The autopsy was performed by Drs. Gaylord and Matzinger.

bullet), extending down to the peritoneal surface. On making the median incision, starting from the suprasternal notch and extending to a point just below the symphysis, the subcutaneous fat is exposed, which is of bright yellow color and normal appearance, except in an area which corresponds superficially to the area of discoloration described as surrounding the wound upon the chest wall. This area marks the site of a hemorrhage into the subcutaneous fat. The remainder of the subcutaneous fat is firm and measures 4.75 cm. in thickness on the abdominal wall. On opening the sheath of the right rectus muscle, it is seen to be of dark-red color. (Culture taken from ecchymotic tissue under the upper bullet hole and from between the folds of the small intestine. Three tubes from each locality on agar and gelatin)

On opening the abdominal cavity, the parietal surface of the peritoneum is exposed, and is found to be covered with a slight amount of bloody fluid; is perfectly smooth and not injected. The great omentum extends downward to a point midway between the umbilicus and the symphysis. It is thick, firm; its inferior border is discolored by coming in contact with the intestines. Below the umbilicus a few folds of intestines are exposed. These are likewise covered with discolored blood, after the removal of which the peritoneal surface is found to be shiny. On the inner aspect of the abdominal wound the omentum is found to be slightly adherent to the parietal peritoneum, and can be readily separated with the hand from the edge of the wound. At this point the omentum is somewhat injected. This adhesion to the omentum is found to extend entirely around the abdominal wound. The parietal peritoneum immediately adjacent to the inner aspect of the abdominal wound is ecchymotic.

On removing the subcutaneous fat and muscles from the thoracic wall, the point which marks the dissolution of continuity of the skin upon the surface, is found to lie directly over the margin of the sternum and to the right side between the second and third ribs. There is no evidence of ecchymosis or injury to the tissues or muscles beneath the subcutaneous fat. On making an incision through the subcutaneous fat, directly through the wound upon the chest, a small cavity is exposed about the size of a pea just beneath the skin which is filled with fluid blood. The subcutaneous tissue underlying the area of discoloration on the surface of the chest wall shows hemorrhagic infiltration.

On removing the sternum, the lungs are exposed, and do not extend far forward. A large amount of pericardial fat is exposed. Pleural surface on both sides is smooth. There are no adhesions on either side within the pleural cavities. The diaphragm on the right side extends upward to a point opposite the third rib in the mammary line. No perceptible amount of fluid in either pleural cavity. On opening the pericardial cavity, the surface of the pericardium is found to be smooth and pale. The pericardium contains approximately 6 c.c. of straw-colored, slightly turbid fluid. (Some taken for examination.)

On exposing the heart, it is found covered with a well-developed panniculus. The heart measures, from the base to the apex, on the superficial aspect, 10.5 cm. The right ventricle is apparently empty. The heart feels soft and flaccid. On opening the left ventricle, a small amount of dark-red blood is found. The muscle of the left ventricular wall is 1.5 cm. in thickness; dark reddish-brown in color; presents a shiny surface. The average thickness of the pericardial fat is 3.5 mm. (Cultures made from the auricle.) The left auricle contains but a small amount of dark currant-colored blood. The mitral valve admits three fingers. The right ventricle, when incised in the anterior line, is found to be extremely soft; the

muscular structure is 2 mm. in thickness. The panniculus measures 7 mm. The muscle is dark-red in color; very shiny, and the pericardial fat invades the muscular wall at many points.

On opening the right auricle, it is found to be filled and distended by a large currant-colored clot, which extends into the vessels. The tricuspid orifice admits readily three fingers. The coronary arteries are patulous and soft; no evidence of thickening.

Lungs are gray color and contain a moderate amount of coal-dust pigment. Slight amount of frothy fluid escapes from the bronchi; but the pulmonary tissue is crepitant and free from exudate.

On unfolding the folds of intestine, there is no evidence of adhesion until a point just beneath the mesocolon is reached, when, on removing a fold of small intestine, a few spoonfuls of greenish-gray thick fluid flows into the peritoneal cavity.

On the anterior gastric wall is an area to which a fold of the gastrocolic omentum is lightly adherent. On breaking the adhesion, there is found a wound about midway between the gastric orifices, 3.5 cm. in length, parallel with the greater curvature of the stomach, 1.5 cm. from the line of omental attachment. This wound is held intact by silk sutures. There is no evidence of adhesion at any other point on the anterior wall. The gastric wall surrounding the wound just mentioned for a distance of 2 cm. to 3 cm. is discolored, dark greenish-gray in appearance, and easily torn. On exposing the posterior wall of the stomach from above, along its greater curvature, the omentum is found to be slightly adherent, a line of silk ligatures along the greater curvature of the stomach marking the site where the omentum had been removed. On throwing the omentum downward, the posterior gastric wall is exposed. On the posterior wall, a distance of 2 cm. from the line of omental attachment, is a wound approximately 2 cm long, held intact by silk sutures. The gastric wall surrounding this wound is discolored. On the surface of the mesocolon, which is posterior to the gastric wall at this point, is a corresponding area of discoloration, the portion coming directly in contact with the wound in the gastric wall being of dull gray color. The remainder of the surface of the posterior wall of the stomach is smooth and shiny. Beyond the surgical wound in the posterior wall of the stomach is found an opening in the retroperitoneal fat, large enough to admit two fingers. This opening communicates with a track which extends downward and backward as far as the finger can reach. The tissues surrounding this track are necrotic. On removing the descending portion of the colon, a large irregular cavity is exposed, the walls of which are covered with gray, slimy material, and in which are found fragments of necrotic tissue. Just at the superior margin of the kidney is located a definite opening which forms the bottom of the track traced from the stomach. On stripping the left kidney from its capsule, it is found that the superior portion of the capsule is continuous with the cavity. The weight of the left kidney is 5 oz. 1 gm. The kidney is readily stripped from its capsule; is dark red; the stellate veins are prominent, and along its greater curvature are numerous dark red depressions. On the superior aspect of the kidney is a protrusion of the cortex, dark red in color, and in this protrusion is a laceration 2 cm. long, extending across the superior border, approximately at right angles to the periphery of the kidney and from before backward. On incising the kidney, the cortex and medulla are not easily distinguishable from one another; both are of rose red color, the cortex measuring approximately 6 mm. in thickness. The vessels in the

pyramids of Ferrein are very prominent. Beneath the protruding portion of the surface, the cortex is dark red in color. This discoloration extends downward in pyramidal form into the medulla. The laceration of the surface marks the apex of the protrusion of the kidney substance. Between the spleen and the superior aspect of the kidney is a necrotic tract which extends down and backward, and ends in a blind pocket. The tract which included the superior aspect of the kidney can be traced into the perinephritic fat to a point just above the surface of the muscles of the back.

The necrotic cavity which connects the wound on the posterior wall of the stomach and the opening adjacent to the kidney capsule is walled off by the mesocolon, and is found to involve an area of the pancreas, approximately 45 mm. in diameter and extending about half-through the organ. This organ at its center forms part of the necrotic cavity. Through its body are found numerous minute hemorrhages and areas of gray softening, the size of a pea or smaller. These are less frequent in the head portion of the pancreas.

A careful examination of the track leading down toward the dorsal muscles fails to reveal the presence of any foreign body. After passing into the fat, the direct character of the track ceases; and its direction can be traced no farther. The adjoining fat and the muscles of the back were carefully palpated and incised, without disclosing a wound or the presence of a foreign body. The diaphragm was carefully dissected away, and the posterior portion of the thoracic wall likewise carefully examined. All fat and organs which were removed, including the intestine, were likewise examined and palpated, without result.

The great amount of fat in the abdominal cavity and surrounding the kidney rendered the search extremely difficult.

The right kidney is imbedded in a dense mass of fat; capsule strips freely; it weighs 5 ounces; measures 11.5 cm.; substance is soft; cortex is 6 mm. in thickness; rose-red in color; cut surface slightly dulled. There are a few depressions of the surface, and the stellate veins are prominent.

The liver is dark-red in color; the gall-bladder distended. The organ was not removed.

The autopsy continued for a longer period than was anticipated by those who had charge of the President's body, and we were requested to desist seeking for the bullet and terminate the autopsy. As we were satisfied that nothing could be gained by locating the bullet, which had apparently set up no reaction, search for it was discontinued.

Anatomic Diagnosis.—Gunshot wound of both walls of the stomach and the superior aspect of the left kidney; extensive necrosis of the substance of the pancreas; necrosis of the gastric wall in the neighborhood of both wounds; fatty degeneration, infiltration and brown atrophy of the heart muscle; slight cloudy swelling of the epithelium of the kidneys.

A matter of no inconsiderable embarrassment to us arose in the objection of our removing sufficient portions of the tissues for examination. We were able to secure only two small fragments of the stomach wall; tissue from around the wound upon the chest wall; a portion of fat from the wall of the necrotic cavity; a small piece of each kidney, that of the left kidney including the portion involved by the original wound; and pieces of heart-muscle from the right and left ventricles. The microscopic examination of these tissues follows:

The piece of retroperitoneal fat, where it forms part of the necrotic cavity, is seen on section to be covered with a thick gray deposit, which has an average thickness of from 4 mm. to 6 mm. Beneath this and separating it from the fat, is a well-defined area of hemorrhage from 1 mm. to 2 mm. in thickness. The appearance of this piece of tissue is characteristic of the fat tissue surrounding the entire cavity. A section made perpendicular to the surface and stained with hematoxylin-eosin, shows the following characteristics: Under low power there is no evidence of round-celled infiltration between the fat cells, or of fat necroses. The surface of the tissue which, in the microscopic specimen was covered by a layer of grayish material, proves, under low power, to consist of a partly organised fibrinous deposit. At the base of this deposit is evidence of an extensive hemorrhage, marked by deposits of pigment. The surface of the membrane is of rough and irregular appearance, and contains a large number of round cells with deeply stained nuclei. Under high power the organisation of the membrane may be traced from the base toward the surface. The portion immediately adjacent to the fat tissue consists of a network of fibrin enclosing large numbers of partly preserved red blood corpuscles. In many areas the red blood corpuscles are broken down and extensive deposits of pigment are found. Extending into the fibrin structure of the membrane are numerous typical fibroblasts and round cells. In some regions pigment is evidently deposited in the bodies of large branching and spindle cells. Here and there, included in the membrane, are the remains of fat cells, and toward the surface of the membrane a large number of round cells scattered through the interstices of the membrane. There are but few polymorphonuclear leukocytes. Here and there in the membrane are fragments of isolated fibrous connective tissue with irregular contours and an appearance suggesting that they are fragments of tissue which have been displaced by violence and included in the fibrin deposit. The fibrin in the superficial layers of the membrane is formed in hyaline clumps. The organisation along the base of the deposit is comparatively uniform.

Sections stained with methylen blue, carbol-thionin and Gram's method were carefully examined for the presence of bacteria, with negative results. Even upon the surface of the membrane there are no evidences of bacteria.

The section of the left kidney, including the triangular area of hemorrhage described in the macroscopic specimen, reveals the following appearances: (Section hardened in formalin, stained with hematoxylin-eosin.) Examined macroscopically, section represents a portion of a kidney cortex made perpendicular to the surface of the cortex, and including an area of hemorrhage into the substance of the cortex 1 cm. in length, measured from the capsular surface downward, and presenting a width of from 5 mm. to 6 mm. The capsular surface has apparently been torn.

Under low power the margins of the preparation are found to consist of well preserved kidney structure. There is a slight amount of thickening of the interstitial tissue, and occasional groups of tubules are affected by beginning cloudy swelling. The glomeruli are large and present a perfectly normal appearance. As we approach toward the center of the preparation, occasional glomeruli are met with in which the capillary loops are engorged and the adjacent tubules contain red blood-corpuscles. A short distance farther, the kidney structure becomes entirely necrotic. Here and there the remains of tubules may be made out, and these are infiltrated with cells. The necrotic area presents a rough, net-like structure. As we approach toward the surface of the kidney, we find that the necrosis

becomes more marked. There is the merest suggestion of kidney structure, its place being taken by disintegrated red blood-cells and leukocytes, embedded in a well-defined fibrinous network. There is great distortion of the kidney structure about the periphery of the necrotic area. In this region a considerable amount of pigment is also found in the necrotic tissues.

Under high power, the characteristics of the necrotic tissues may be better observed. The kidney structure is broken up and torn into irregular fragments, infiltrated by red blood corpuscles and leukocytes. In the portion of the necrotic mass beneath the capsule, the kidney structure is practically obliterated and is replaced by a network of fibrin, which includes large numbers of red blood cells and leukocytes. Scattered through the entire necrotic area are frequent deposits of pigment. In the deeper portions of the necrotic area, the margins of the fibrin deposit are invaded by fibroblasts from the connective tissue structure of the kidney. The organisation in these areas is, however, slight.

Sections stained with methylen blue and Gram's method and carefully examined under oil immersion, fail to reveal the presence of any organisms. In preparations stained with methylen blue, the deposits of pigment may be readily observed. Section of the same tissue hardened in Hermann's solution and examined for fat, shows the presence of numerous fat droplets within the epithelium of the tubules which are adjacent to the area of necrosis. In the portions of the preparation more widely distant from the area of necrosis no fat is present.

Section of the right kidney hardened in formalin and stained with hematoxylin-eosin reveals the presence of areas in which slight parenchymatous degeneration of the epithelium in the uriniferous tubules may be noted. These areas are not extensive and are confined to single groups of tubules. The interstitial connective tissue of the organ seems to be slightly increased in amount, but there is no well-defined round-celled infiltration. An occasional hyaline glomerulus is to be met with in these cases surrounded by increased connective tissue. The epithelium of the kidney tubules, aside from those in which the parenchymatous degeneration is present, is well preserved. The nuclei are well stained; protoplasm, finely granular.

A fragment of the stomach wall taken from the immediate neighborhood of the anterior wound is in a condition of complete necrosis. The nuclei of the cells are scarcely demonstrable. The epithelial surface is recognised with difficulty. At its base are apparently a few round cells. Examination of the blood vessels reveals nothing characteristic. There is apparently no evidence of thrombosis. A section made through the gastric wall at some distance from the wound reveals the well-preserved muscular structure of the gastric wall, which presents no characteristic alterations. Superficial portions of the epithelium have apparently been affected by post-mortem digestion. However, in one portion of the preparation, the epithelium is intact, and shows distinct evidence of marked round-celled infiltration between the glandular structures. The blood vessels contained blood-corpuscles with the usual number of leukocytes.

The fragments of heart-muscle which were removed from the right and left ventricular walls, were examined in the fresh state, and exhibited a well-defined fatty degeneration of the muscle fibers, and in the case of the right ventricular wall, an extensive infiltration between the muscle fibers, of fat, was apparent. Sections from these fragments of muscle hardened in Hermann's solution, are taken for examination. A fragment of muscle from the right ventricular wall was removed at a point where the fat penetrated deeply into the muscular structure, the

ventricular wall at this point showing an average thickness of 2.5 mm. Under low power, the muscle fibers are separated into bundles by masses and rows of deeply stained fat cells. The muscle fibers are seen to contain groups of dark brown granules lying in the long axes of the cells. Under high power, these are resolved into extensive groups of dark brown pigment arranged around the nuclei. The muscle fibers are slender, the cross and longitudinal striation is well defined. Examined near the margin of the preparation, where the osmic-acid fixation has been successful, all of the muscle fibers are found to contain minute black spherical bodies, extending diffusely through all the muscle fibers about the entire margin of the preparation. These fine fat droplets are present in sufficient amount to speak of an extensive diffuse fatty degeneration of the muscle fibers. Where the large fat cells have separated the muscle fibers, these are found to be more atrophic than those in the central portions of the larger bundles.

The examination of the section through the healed bullet wound on the chest walls reveals nothing of importance. The dissolution of continuity is filled in by granulation-tissue, and there is evidence of beginning restoration of the epithelium from the margins. Stains for bacteria give negative results.

In summing up the macroscopic and microscopic findings of the autopsy, the following may be stated: The original injuries to the stomach wall had been repaired by suture, and this repair seems to have been effective. The stitches were in place, and the openings in the stomach-wall effectually closed. Firm adhesions were formed both upon the anterior and posterior walls of the stomach, which reinforced these sutures. The necroses surrounding the wounds in the stomach do not seem to be the result of any well-defined cause. It is highly probable that they were practically terminal in their nature, and that the condition developed as a result of lowered vitality. In this connection there is no evidence to indicate that the removal of the omentum from the greater curvature and the close proximity of both of these wounds to this point, had any effect in bringing about the necrosis of the gastric wall, although circulatory disturbances may have been a factor. The fact that the necrotic tissue had not been affected by digestion strongly indicates that the necrosis was developed but shortly before death. The excavation in the fat behind the stomach must be largely attributed to the action of the missile. This may have been the result of unusual rotation of a nearly spent ball, or the result of simple concussion from the ball passing into a mass of soft tissues. Such effects are not unknown. The fact that the ball grazed the superior aspect of the left kidney, shown by the microscopic investigation of that organ, indicates the direction of the missile, which passed in a line from the inferior border of the stomach to the tract in the fat immediately posterior to the kidney. There was evidence that the left adrenal gland was injured.

The injury to the pancreas must be attributed to indirect, rather than direct, action of the missile. The fact that the wall of the cavity is lined by fibrin, well advanced in organisation, indicates that the injury to the tissues was produced at the time

of the shooting. The absence of bacteria from the tissues, indicates that the wound was not infected at the time of the shooting, and that the closure of the posterior gastric wound was effectual. The necrosis of the pancreas seems to us of great importance. The fact that there were no fat necroses in the neighborhood of this organ, indicates that there was no leakage of pancreatic fluid into the surrounding tissues. It is possible that there was a leakage of pancreatic fluid into the cavity behind the stomach, as the contents of this cavity consisted of a thick, grayish fluid, containing fragments of connective tissue. In this case the wall of fibrin would have been sufficient to prevent the pancreatic fluid from coming in contact with the adjacent fat. The extensive necrosis of the pancreas would seem to be an important factor in the cause of death, although it has never been definitely shown how much destruction of this organ is necessary to produce death. There are experiments upon animals upon record, in which the animals seem to have died as a result of not very extensive lesions of this organ. One experiment of this nature reported by Flexner (*Journal of Experimental Medicine*, Vol. II.) is of interest. The fact that concussion and slight injuries of the pancreas may be a factor in the development of necrosis is indicated by the researches of Chiari (*Zeitschrift für Heilkunde*, Vol. XVII., 1896, and *Prager Med. Wochenschr.*, 1900, No. 14), who has observed (although a comparatively rare condition) extensive areas of softening and necrosis of the pancreas, especially of the posterior central portion which lies directly over the bodies of the vertebra, where the organ is most exposed to pressure or the effects of concussion. The wound in the kidney is of slight importance, except as indicating the direction taken by the missile. The changes in the heart, as shown by the macroscopic inspection and the microscopic examination, indicate that the condition of this organ was an important factor. The extensive brown atrophy and diffuse fatty degeneration of the muscle, but especially the extent to which the pericardial fat had invaded the atrophic muscle fibers of the right ventricular wall, sufficiently explain the rapid pulse and lack of response of this organ to stimulation during life.

REPORT ON THE BACTERIOLOGIC EXAMINATION.

BY HERMAN G. MATZINGER, M. D.,

Bacteriologist to the New York State Pathological Laboratory.

It is obvious that the short space of time which has elapsed since the death of the President has hardly been sufficient to prepare a complete and thorough bacteriologic report. This report contains all the observations which have been made up to this time:

On September 11, during the life of the President, cultures were made by Dr. Wasdin from the base of the abdominal wound and from dressings removed at

the same time. These were submitted to me for examination, and showed the presence of the ordinary pus organisms: *Staphylococcus pyogenes aureus* and *S. cereus albus*, with a gas-forming bacillus which, in pure anaerobic culture on glucose gelatin, forms small, pearly, translucent colonies, with no liquefaction. In litmus milk it produces acid, but no coagulation. Morphologically, it is apparently a capsulated, short bacillus, which takes stains poorly, and which does not stain by Gram's method. Inoculated into the ear vein of a rabbit, which was killed immediately afterward, it produced, after twenty-four hours in the body of the rabbit, a marked accumulation of gas in the organs, and again grew out in pure culture. As yet the organism is not fully identified.

None of these cultures showed streptococci. A bacterium which appears to be one of the proteus group was, however, isolated which does not stain by Gram, and appears in varying forms, sometimes small oval, and again quite rod-shaped and in short chains. Sometimes it is surrounded with a slimy covering, which remains clear like a capsule when the organism is stained. On slanting agar, it produces a whitish, slimy growth, which gradually runs to the bottom of the slant and produces an odor of decomposition. On gelatin, it grows very slowly with slight and slow indication of liquefaction. In litmus milk, it produces acid and rapid coagulation.

At the time of the autopsy, September 14, inoculations were made by myself. From the base of the wound, there was again obtained a number of pus organisms, principally a white staphylococcus and the bacterium described above, but no streptococci. Cultures made from the peritoneal surface of the intestines were entirely negative. Cultures made from the under surface of the omentum near the colon, were entirely negative, both with and without oxygen. Cultures from the blood of the right auricle were likewise negative. A very careful and extensive search for microorganism in the contents of the necrotic cavity, behind the stomach, reveals nothing but a short, stumpy bacterium, which, as far as the work has been carried at present appears to belong to the proteus group, and is very like *proteus hominis capsulatus*, described by Bordoni and Uffreduzzi.

Morphologically, it is not uniform, and sometimes appears almost encapsulated, being surrounded by material that does not stain; is quite refractory to Gram, and produces an odor of decomposition as it grows. It does not liquefy gelatin rapidly and grows slowly, as a glistening white elevated surface growth which slowly sinks; but on agar in the thermostat it grows very rapidly, as a moist, grayish-white, translucent mass. Colonies on gelatin plates have a clean circumference, are granular and quite refractive. In litmus milk it produces acid and rapid coagulation. Animal experiments are still incomplete and cannot be published at this time.

It must be stated that there is occasion for suspecting that this may be a contamination, either from the outer wound or elsewhere, because, quite unavoidably, the technic in obtaining the material and cultures from the necrotic cavity was not absolutely correct.

Cultures made from the small area of broken-down tissue under the chest wound at the time of the autopsy, grew what appears to be staphylococcus epidermidis albus, described by Dr. Welch.

The slimy, gray, necrotic material from the cavity above the transverse mesocolon behind the stomach, was carefully examined microscopically, with the result that very few microorganisms were found in the fresh state, and no recognisable tissue elements of any kind, no leukocytes or pus-corpuscles, but an abundance of

crystals which appeared more like fatty acid than fat crystals. It contained no free hydrochloric acid, and was alkaline in reaction. Experiments as to its digestive power were negative. About 2 c.c. of this material was injected into the space behind the stomach of a dog (still living), with no results except quite an elevated temperature for three or four days. Other animal experiments are still incomplete.

It might be well to state here that the bacteriologic examination of the chambers and barrel of the weapon used, as well as the empty shells and cartridges, ordered by the District Attorney, was entirely negative, except that from a loaded cartridge there was grown an ordinary staphylococcus and a mold. The chemical examination of the balance of the loaded cartridges, made by Dr. Hill, chemist, was also negative.

The absence of known pathogenic bacteria, particularly in the necrotic cavity, warrants the conclusion that bacterial infection was not a factor in the production of the conditions found at the autopsy.

The foregoing report has received the approval of, and is issued by, the undersigned, the medical staff attending the late President, William McKinley.

P. M. RIXEY,
MATTHEW D. MANN,
HERMAN MYNTER,
ROSWELL PARK,
EUGENE WASDIN,
CHARLES MCBURNEY,
CHARLES G. STOCKTON.

BUFFALO, October 12, 1901.

NOTE BY THE EDITOR—The report of the medical staff in attendance upon President McKinley is printed in full, with the exception of the bulletins. These were all printed in the October issue of the JOURNAL and may be referred to with interest in relation to this report.

CORRESPONDENCE.

ALOES AND HEMORRHOIDS.

Editor Buffalo Medical Journal:

SIR—I do not know whether others in the medical profession have noticed the effects of laxative pills on patients in producing hemorrhoids, but it has been my experience that all laxatives containing aloes, or its active principal—aloin, are prime factors, in men more especially, of causing hemorrhoidal conditions. One of the physiological actions of aloes, or aloin is the determination of blood to the part, producing a local congestion, and if its use be persisted in a fine crop of external piles is the inevitable result.

As about seven-tenths of all laxative pills and tablets contain aloin, physicians should be on their guard in prescribing them for any extended use.

JOHN H. GRANT, M. D.

893 ELLICOTT SQUARE.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

BACK VOLUMES OF THE TRANSACTIONS.

Editor Buffalo Medical Journal:

SIR—The society has in its possession a surplus of its annual volumes for certain years past beyond its current needs, and it appears desirable to place them at the disposal of the individual members. The years thus available, some more fully than others, are: reprints of the years 1807—31 in one volume; reprints of the years 1840-43; and volumes from 1868 to 1898 inclusive; also for the years 1861 and 1866.

These or any part of them are offered gratuitously so long as they last, to members and delegates of the society, and, if not speedily called for by them, to all members of the County Medical Societies; they will also be given on application to society or other libraries. The only expense will be for packing and transportation, which is estimated will be about \$2.00 for the whole number offered; this may be sent with the request and they will be forwarded prepaid.

Some volumes are also available for the years 1891, 1892, 1895, 1896 and 1898, at 50 cents a volume; those of years subsequent to 1898 can be had at \$1.00 a volume.

F. C. CURTIS, Secretary.

ALBANY, September 1, 1901.

THIRTEENTH INTERNATIONAL MEDICAL CONGRESS TRANSACTIONS.

Editor Buffalo Medical Journal:

SIR—The general secretary has the honor to inform the members of the Thirteenth International Congress of Medicine that the printing and forwarding of the general volume and of the seventeen records of the sections is entirely finished now.

Any member who, by mistake, should not have received the volumes where he is entitled to, is hereby requested to address his reclamation to the editors of the Congress, Mrt. Masson & Co., 120 Boulevard Saint Germain, Paris.

After December 31, 1901, any reclamation will not be acknowledged.

A. CHANTHARD, General Secretary.

PARIS, September 9, 1901.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

All communications, whether of a literary or business nature, books for review and exchanges should be addressed to the editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XLI.—LVII. NOVEMBER, 1901.

No. 4.

Report of the Physicians who Attended President McKinley.

THE official report of the President's medical and surgical staff, printed elsewhere, presents many points of interest, though most of the facts it contains already have been published in the JOURNAL. One of the striking features of the case which its reading accentuates was the low vitality of the President,—a factor of great import in determining the fatal issue.

President McKinley had been in public life for 40 years, the last decade of which it will be remembered was a period of continual strain. While he was in comparative health when stricken down, and was able to meet the every-day demands upon his physical resources, yet he was unprepared to withstand the enormous drain and strain that the last seven days of his life required. It early became necessary to resort to cardiac stimulants and these were but poorly or at most only temporarily responded to. The reparative force was not there in sufficient volume to meet the requirements of such a sudden and awful exaction. The solar plexus undoubtedly received a shock both from the wound and the necessary surgical manipulations that contributed to the complications of the case.

The autopsy report in all its details is of special interest and throws much light upon points heretofore not clearly comprehended by the profession or the public. The bacteriological investigation was most complete and the report of it contributes to the general fund of information in a very satisfactory manner. The minute and painstaking character of the two latter—anatomical and bacteriological—will attract attention, and the

entire report in its several parts will convince the world, lay as well as professional, that the President of the United States in his grievous affliction received the very best medical and surgical care, that nothing was left undone which could have contributed to his comfort or safety, and that his wound was one in its very nature which no skill in surgery could cure, it being absolutely mortal in its effects, and beyond all but temporary relief.

The entire conduct of the case was upon modern scientific medical and surgical principles, and no intelligent observer can gainsay this fact, which is a comforting reflection in view of the awfulness of a calamity that plunged the whole world into the deepest gloom. These are some of the reflections we are led into after reading this report, which is a becoming final chapter to a history that saddens the hearts of our people more universally than any other event since the foundation of the republic.

Semi-Annual Meeting of the Medical Society of the State of New York.

IN THE number of the JOURNAL for May, 1851, appears the notice of a semi-annual meeting of the State Medical Society, to be held in Buffalo the second Tuesday in June, with the request that "as it is a new movement on the part of the society it should be responded to by a full meeting." The meeting was a success, but for some reason, the plan was not continued. At the annual meeting of the society, held at Albany last January, just fifty years later, again it was decided to hold a semi-annual meeting—this time at the Academy of Medicine in New York City, October 15 and 16, 1901—and this like its predecessor of 1851, was a pronounced success. The meeting was as well attended as any ever held in the Academy and the high standard of the papers read, as well as the scientific ability of the readers made a most favorable impression upon the hundreds who sought and obtained admission to the sessions.

On Tuesday evening, October 15, a symposium on Some of the Diseases of the Liver and Bile Passages was given, which was participated in by Drs. Charles G. Stockton, of Buffalo; Richard C. Cabot and S. J. Mixter, of Boston; Simon Flexner, of Philadelphia; L. S. Pilcher, of Brooklyn; C. L. Gibson, F. Tilden Brown and B. F. Curtis, of New York.

On Wednesday evening the Medical Society of the County of New York tendered a reception to the members and guests which proved a most enjoyable entertainment.

Among some of the special features of the meeting were the demonstration of the vascular supply of the kidney, by Dr. Howard Kelly, of Baltimore; a discussion on the treatment of croupous pneumonia, led by Dr. J. C. Wilson, of Philadelphia; the report of the physicians on President McKinley's case, read by Dr. M. D. Mann, of Buffalo, supplemented by impromptu remarks by Dr. Herman Mynter, of Buffalo.

Forty out of the fifty papers on the program, besides the symposium, were read and discussed, and the verdict rendered was that no better meeting of the state society had ever been held. Even the annual meetings at Albany rarely equal and never excel it in quality.

Although medical society meetings are frequent in New York State, there is yet room for a semi-annual meeting of the state society and the innovation, again started, might well be followed in succeeding years.

Much credit for the success of the meeting is due to the President, Dr. Henry L. Elsner, of Syracuse, ably assisted by the business committee of which Dr. Nathan Jacobson, of Syracuse, is chairman.

The Exposition—Farewell.

THE closing days of the great Pan-American Fair have been reached, and while these lines are writing it is announced that the last day will be November 2. The director-general, who goes to Mexico as a delegate to the Pan-American Congress, has taken his leave, and all the officials are making preparations for the closure of one of the most interesting exhibitions ever held on this continent.

We have not time nor inclination now to deal with the fair in all its important relations to the community, nor in criticism of its management, which latter has been a subject of both praise and blame, but there are one or two features that relate to medicine which we desire to recall. It is to the great credit of the medical director, Dr. Roswell Park, that he insisted upon the construction of a proper hospital,—a triumph which was obtained over much opposition, we believe. The wisdom of building the

hospital was over and again demonstrated, but especially in the case of President McKinley, where the operation on him was made within two hours after the wounds were inflicted.

Again, the thorough sanitation of the fair is a subject of medical pride. Not one serious inconvenience has been experienced by reason of any unsanitary conditions of the grounds, but on the other hand, often at much cost of time and patience, there has been most complete inspection and insistence of thorough cleanliness by the sanitary officer, and for this the thanks of the community are due to the incessant labors of Dr. Nelson W. Wilson.

We should like to mention other matters of interest, but must defer until another time a general commentary on the Rainbow City, contenting ourselves now with these two important allusions to the conduct of the fair and a mere regretful—Farewell.

The Passing of Sectarianism in Medicine.

UNDER this title the *St. Paul Medical Journal*, October, 1901, makes so clear and potent an argument that we quote its words in full, which we feel sure will interest every physician who favors a unification of the profession:

We are optimistic enough to believe that the conditions outlined in the closing paragraph of Dr. Reed's eloquent presidential address, delivered at the St. Paul meeting of the American Medical Association, will be brought to pass before another generation has come and gone. There is a very considerable number of able and scholarly practitioners of medicine who are at the present time barred from the privilege of professional association with those who form the great body of scientific practitioners because they were misguided and ill-advised when they began the study of medicine and the sectarian atmosphere with which they were then surrounded has clung to them ever since. Some voluntarily cling to the name which they have assumed, not because they believe in any of the absurd theories which were held when the school to which they belong was born, but simply because there is money in it. The majority, we believe, cling to the name because under the present conditions they see no way of escape and if they should openly renounce the creed which they have long since ceased to believe, they would find themselves adrift with no port in sight.

The Illinois State Medical Society, at its last meeting, by passing the following resolution, took a step which if it is endorsed by the profession at large, and if it is followed by other state societies, as we believe it will be, will do more to banish schismatic medicine than anything which has ever been done:

Resolved, That the school of graduation shall be no bar to membership in the Illinois State Medical Society, providing such physician is recognised by the local societies as qualified and not claiming to practise any exclusive system of medicine.

We believe that it will be generally admitted that many of those who practice medicine under some sectarian name are men of good education and are perfectly competent to take care of their patients, and indeed that they treat their patients exactly as other physicians do, and are perfectly familiar with the modern principles of pathology, diagnosis and treatment. These men, or at least a large proportion of them would be glad to drop their exclusive name and join the ranks of scientific practitioners of medicine if an opportunity to do so were offered them. A great deal of opposition would have to be overcome, especially among the older men, many of whom would find it impossible to give up the prejudices of a lifetime, but the complete organisation of the whole profession which would ultimately result from the disappearance of all the false systems which, even although they exist, in name only, are still a very real barrier to the progress of scientific medicine, would accomplish such a vast amount of good that we hope to live to see it brought to pass.

SUBSTITUTION in physicians's prescriptions is a perennial subject for discussion in the medical journals. Just now almost every magazine is making some reference to it, stimulated to do so we presume through the letters and circulars issued by many of the manufacturing pharmacists throughout the country. It is all very well to discuss this matter from the sentimental viewpoint, but it will have quite as much effect as Mrs. Partington's attempt to mop the Atlantic ocean dry from her doorstep. The only effectual way to deal with offending druggists is through the enactment of laws prescribing adequate punishment for such serious and hazardous offenses. A law such as that recently enacted by the General Assembly of the State of Tennessee would meet the case. It is entitled an act to prevent the substitution of any drug in filling physicians's prescriptions by druggists in that state, making violation a misdemeanor and upon conviction the druggist shall be fined not less than \$25 nor more than \$100 for each and every offense.

THE Chicago Medical Society tendered a banquet to N. S. Davis, the oldest living president of the society at the Auditorium Hotel, Saturday evening, October 5, 1901. The banquet was attended by a large number of physicians, many of whom were from distant cities.

THE Virchow anniversary, commemorating the eightieth birthday of the Berlin savant, was a conspicuous gathering of noted men in all parts of the world. In this country it was celebrated by a dinner given at Sherry's, New York City, Saturday evening, October 12, 1901. One of the principal speakers was Dr. Abraham Jacobi, of New York, whose own anniversary was similarly celebrated about eighteen months ago. Dr. Jacobi was most felicitous in his remarks at the Virchow dinner and added to his renown as a gifted speaker and a physician of great knowledge in medical affairs.

Drs. Osler and Welch, of Baltimore, contributed largely to the enjoyment of the occasion, which was every way a credit to its projectors.

PERSONAL.

DR. P. M. RIXEY, medical inspector United States navy, who for several years served as physician at the White House, and was on duty with the President and Mrs. McKinley during their recent visit to Buffalo, which terminated so sadly, will, it is announced, be appointed surgeon-general of the navy upon the expiration of the term of Surgeon-General Van Reypen. President Roosevelt thus delicately carries out the intention of the late President McKinley, in bestowing fitting recognition upon Dr. Rixey of his conspicuous ability as an officer and faithfulness as a physician.

DR. A. L. GIHON, medical-director United States navy (retired), stationed at New York, lately spent a week in Buffalo as the guest of Dr. and Mrs. William Warren Potter, of Franklin Street. Dr. Gihon took active part during the meeting of the American Public Health Association, held in this city September 16-20. He also paid several visits to the exposition, where his sons Albert and Clarence, who reside at Paris, are represented in the gallery of arts with paintings that have attracted attention.

DR. GEORGE W. BRUSH, of Brooklyn, Commander of the Medal of Honor Legion, attended the eleventh annual meeting of the order held in Buffalo, October 9 and 10, 1901, and presided at the sessions. Dr. Brush was formerly a state senator, in which capacity he rendered valuable service to the medical profession in relation to bills that came up for consideration during his term.

DR. H. W. LONGYEAR, of Detroit, Mich., announces that he has removed his office and residence from 698 Woodward Avenue. Office, Rooms 1 and 2 Grand Circus Building, 271 Woodward Avenue. Telephone, Main 1418. Hours: 8 to 9 a.m., 1.30 to 3 p.m. Residence, 462 Jefferson Avenue. Telephone, Main 4244.

DR. GEORGE RYERSON FOWLER, of Brooklyn, Dr. Maurice J. Lewi, of New York, Dr. Eugene Beach of Gloversville, and Dr. A. Walter Suiter, of Herkimer, members of the State Medical Examining and Licensing Board, were among the recent visitors to the exposition.

DR. MAURICE J. LEWI, of New York, secretary of the State Medical Examining Board, has removed from 102 W. 81st Street to 149 W. 85th Street. Hours: 8.30 to 10 in the morning; 5 to 7 in the evening. Telephone call: 2059 Riverside.

DR. VICERZ CZERNY, professor of surgery at the University of Heidelberg, who has recently visited this country, was the guest, September 20, 1901, of Dr. Roswell Park. Professor Czerny visited the University of Buffalo and the exposition.

DR. CARL G. LEO-WOLF, of Niagara Falls, has removed his office to his residence, 1136 Main Street, corner Chilton Avenue. Hours: 9 to 10 a.m., 2 to 4 and 7.30 to 8.30 p.m. Telephone, Bell 244; Home 254.

DR. A. M. CARTLEDGE, of Louisville, Dr. Edwin Walker, of Evansville, Dr. Joseph Price, of Philadelphia, and Dr. W. G. Macdonald, of Albany, have recently paid short visits to Buffalo and the exposition.

DR. AND MRS. JOHN E. BACON, formerly of Buffalo, now of Tombstone, Ariz., have recently paid a visit to Mr. and Mrs. John D. James, of Elmira, N. Y.

DR. AND MRS. WILLIAM D. HAGGARD, JR., of Nashville, were among the late summer visitors to Buffalo and the exposition. They expressed great delight with the city and the fair.

MR. FRANK A. RUF, of St. Louis, president of the Antikamnia Chemical Company, has been elected vice-president of the Fourth National Bank of that city.

DR. A. A. HUBBELL, of Buffalo, was elected president of the State Medical Association at its late annual meeting held in New York City.

DR. M. F. CLAUSIUS, a graduate of the University of Buffalo, class of 1874, recently paid a visit to Buffalo and the Exposition. Dr. Clausius was appointed to medical service in the army last year, and has been serving in the Philippines since August 1900. He has been granted leave of absence for a month, on the expiration of which he is assigned to duty at Fort Grant, Arizona. Dr. Clausius had a varied experience in the department of Northern Luzon, P. I., and gives a favorable account of the progress there making toward a better civilisation.

OBITUARY NOTES.

DR. HENRY RAYMOND ROGERS, of Dunkirk, N.Y., died at his home October 19, 1901, aged 79 years. He graduated in medicine at Jefferson Medical College, Philadelphia, in 1851, and was noted for his literary culture and scientific attainments.

DR. CHARLES HENRY BROWN, of New York, died October 15, 1901, aged 45 years. He was for many years managing editor of the *Journal of Nervous and Mental Diseases*. Dr. Brown came from a family of doctors and was himself a noted physician. He is survived by a widow and two daughters.

SOCIETY MEETINGS.

Buffalo Academy of Medicine.

Section on Pathology, September 17, 1901.

REPORTED BY IRVING PHILLIPS LYON, M. D., Secretary

The first regular meeting of the year of the Section on Pathology, Buffalo Academy of Medicine, was held in Alumni Hall, University of Buffalo, September 17, 1901, at 8.30 p.m.

The essayist was Professor Simon Harry Gage of Cornell University, Ithaca, who presented Some demonstrations, with projecting microscope of embryological specimens, including some abnormalities. The paper was discussed by Drs. Williams, Van Peyma and Benedict, and a vote of thanks was tendered Professor Gage for his able address.

The Buffalo Academy of Medicine.

OFFICERS—SESSIONS 1901-1902.

PRESIDENT, Charles G. Stockton; secretary, Francis W. McGuire; treasurer, Charles S. Jewett; trustees, Matthew D. Mann, three years; Joseph W. Grosvenor, two years; Stephen Y. Howell, one year. The vice-presidents by virtue of being chairmen of the various sections are: Julius Ullman, chairman, section of medicine; Harvey R. Gaylord, chairman, section of surgery; Thomas F. Dwyer, chairman, section of obstetrics and gynecology; Grover W. Wende, chairman, section of pathology; Elmer G. Starr, chairman, section of ophthalmology, otology, laryngology and rhinology. The council is therefore composed of the aforementioned officers, the president of the Academy of the previous year, Marcel Hartwig, and the secretaries of the sections, who are: Albert E. Woehnert, secretary, section of medicine; Herriot C. Rooth, secretary, section of surgery; Wm. H. Mansperger, secretary, section of obstetrics and gynecology; Irving P. Lyon, secretary, section of pathology; Arthur G. Bennett, secretary, section of ophthalmology, otology, etc.

PROGRAM, 1901-1902.

September 3, Surgery—Some points on resection of the hip and knee joints, Herman Mynter.

September 10, Medicine—Stated meeting of Academy. Treatment of pneumonia, DeLancey Rochester. Intestinal dyspepsia, J. C. Hemmeter, Baltimore.

September 16, Ophthalmology, etc.—Methyl alcohol; should it be placed on the list of poisons? Swan M. Burnett, Washington, D.C.

September 17, Pathology—Some demonstrations with projecting microscope of embryological specimens, including some abnormalities, Prof. Simon Harry Gage, Cornell University. Vegetating dermatitis developing during the course of infantile eczema, Herman K. DeGroat.

September 24, Obstetrics—Some experiences in a series of obstetrical cases, Eli H. Long. Diagnosis in vertex presentations, P. W. Van Peyma.

October 1, Surgery—Subject to be announced, C. A. Hamann, Cleveland.

October 8, Medicine—Dyspeptic asthma, Max Einhorn, New York City. Subject to be announced, Allen A. Jones.

October 15, Pathology—Subject to be announced, Frederick C. Busch.

October 21, Ophthalmology, etc.—The treatment of the commonest form of deafness, George F. Cott.

October 22, Obstetrics—Concerning the diagnosis and treatment of the various forms of septic pelvic diseases, Ferdinand Henrotin, Chicago.

November 5, Surgery—Subject to be announced, Eugene A. Smith.

November 12, Medicine—Some facts and fallacies concerning pulmonary tuberculosis, John H. Pryor.

November 18, Ophthalmology, etc.—Stated meeting of Academy. Medical and surgical aspect of the Boer war, George Sterling Ryerson, Toronto.

November 19, Pathology—Diseases in the Philippines, Lewellyn E. Barker.

November 26, Obstetrics—Pelvic lesions in relation to their distinctive effects upon mental disturbances, A. T. Hobbs, London, Ont. Reproduction of original work done in microscopic embryology, accompanied by remarks on heredity, Adele A. Gleason.

December 3, Surgery—Subject to be announced, Charles H. Frazier, Philadelphia.

December 10, Medicine—Clinical night. Little's disease, Irving M. Snow; Friedreich's ataxia, Dewitt H. Sherman.

December 16, Ophthalmology, etc.—The original operation for extraction of cataract as devised by Daviel, Alvin A. Hubbell.

December 17, Pathology—Subject to be announced, William Osler, Baltimore. Subject to be announced, Herbert U. Williams.

December 24, Obstetrics—Peritoneal tuberculosis, William H. Mansperger. Concerning the management of labor cases, Stephen Y. Howell.

January 7, Surgery—The blood and its relation to surgical diagnoses, Albert E. Woehnert.

January 14, Medicine—Subject to be announced, A. L. Benedict. The capillary area, Eli H. Long.

January 20, Ophthalmology, etc.—Subject to be announced, Lucien Howe.

January 21, Pathology.—Relation of evolution to infection with special reference to venereal diseases, G. Frank Lydston, Chicago. Discussion by Roswell Park, William H. Heath and

Walter D. Greene. The pathology of stricture of the urethra, J. Henry Dowd.

January 28, Obstetrics. Stated meeting of Academy. Subject to be announced, William R. Pryor, New York City.

February 4, Surgery—Subject to be announced. Dr. Archibald, Montreal.

February 11, Medicine—Syphilis of the nervous system, Floyd S. Crego. Cardiac asthma, H. L. Elsner, Syracuse.

February 17, Ophthalmology etc—Subject to be announced, Frank W. Hinkel.

February 18, Pathology—Clinical and pathological cases in dermatology (stereopticon), John A. Fordyce, New York City.

February 25, Obstetrics—Subject to be announced, J. Montgomery Baldy, Philadelphia.

March 4, Surgery—Stated meeting of Academy. Subject to be announced, Frederic Kammerer, New York City.

March 11, Medicine—Hysterical joint affections, Prescott LeBreton. The present conception of neurasthenia, H. B. Singer.

March 17, Ophthalmology, etc.—Diseases of skin affecting the nose (stereopticon), Grover W. Wende.

March 18, Pathology—Tropical and amebic dysenteries, Simon Flexner, Philadelphia.

March 25, Obstetrics—Placenta previa, Matthew D. Mann. Ectopic pregnancy, Henry D. Ingraham.

April 1, Surgery—Subjects to be announced, Harvey W. Cushing, Boston, and Roswell Park.

April 8, Medicine—Subject to be announced, Irving M. Snow. Pernicious anemia, Charles G. Stockton, and Albert E. Woelnert.

April 15, Pathology—Some practical applications of physiologic chemistry, A. L. Benedict.

April 21, Ophthalmology, etc.—The conservative treatment of chronic otitis media, Max Keiser.

April 22, Obstetrics—Subject to be announced, Lewis S. McMurtry, Louisville.

May 6, Surgery—Wry neck, Prescott LeBreton. Subject to be announced, Bernard Bartow.

May 13, Medicine—Subject to be announced, J. M. Anders, Philadelphia. Children's form of rheumatoid arthritis, Dewitt H. Sherman.

May 19, Ophthalmology, etc.—Subject and essayist to be announced.

May 20, Pathology—Stated meeting of Academy. Subject to be announced, William H. Welch, Baltimore.

May 27, Obstetrics—Subject to be announced, Charles A. L. Reed, Cincinnati.

THE 14th International Medical Congress will be held in a year and a half, preparations for which already have begun. The executive committee consists of the President, Professor Julian Callejay Sanchez; secretary, General Dr. Angell Fernandez-Caro y Nouvilas; treasurer, Dr. Jose y Ocma; members, the president and secretaries of the different sections.

The congress will be convened at Madrid, under the protection of His Majesty, King Alphonse xiii., and his august mother, the Queen Regent, from the 23d to 30th of April, 1903. The object of the congress is to be purely scientific.

The cost of registration is 30 pesetas, (about six dollars) and should be paid to the secretary-general, at the Faculty of Medicine, Madrid, before the date of the meeting or at the time of registration, and will permit the holder to all the privileges offered by the congress.

The congress will be divided into the following sections: (1) Anatomy, anthropology, comparative anatomy, embryology, descriptive anatomy, normal histology and teratology; (2) physiology, physics and chemical biology; (3) general pathology; pathological anatomy and bacteriology; (4) therapeutics, pharmacology and materia medica; (5) internal pathology (general medicine); (6) neuropathology, mental diseases and criminal anthropology; (7) pediatrics; (8) dermatology and syphilography; (9) surgery and surgical operations; (10) ophthalmology; (11) otology, rhinology and laryngology; (12) odontology; (13) gynecology and obstetrics; (14) medicine and military and naval hygiene; (15) hygiene, epidemiology and sanitary science; (16) legal medicine.

Ladies accompanying members will have the benefit of all reductions on railroads and may assist at all fêtes and ceremonies given in honor of the members, on payment of 12 pesetas (about \$2.25.)

THE American Electro-Therapeutic Association held its eleventh annual meeting in Buffalo, September 24-26, 1901. Dr. Ernest Wende, of this city, was the president, and during his annual address discussed the advances in the application of electricity

to therapeutics, and cited what it had accomplished as an aid to medical science. During the meeting an evening session was held in the New York State building at the exposition, at which an interesting paper was read by Dr. A. W. Bayliss, of Buffalo, and there also was an address by Mr. Henry Rustin, superintendent of the electrical department of the exposition.

THE American Public Health Association, including organisations in Canada, Mexico and the United States, held its 29th annual meeting in Buffalo, September 16-20, 1901.

Dr. Benjamin Lee, of Philadelphia, was the president. Among the delegates was Dr. Eduardo Liceaga, of Mexico, who was president of the association when it met in Buffalo four years ago.

At its final session New Orleans was chosen as the place for the meeting next year. The election of officers resulted as follows: President, Henry D. Holton, Brattleboro, Vt.; first vice-president, Walter Reed, U. S. A.; second vice-president, Jesus Chico, Guanajuato, Mexico; secretary, Charles O. Probst, Columbus, O.; treasurer, Frank W. Wright, New Haven, Ct.; members of the executive committee, to serve for two years, Gardner T. Swarts, of Providence, W. C. Gorgas, of Havana, J. C. Schrader, of Iowa; member of the executive committee, to serve for one year, Fernando Lopez, of Mexico.

The committee on public health legislation presented a report through the chairman, U. O. B. Wingate, of Milwaukee. The report dealt mainly with the Spooner bill, which provides for the creation of a bureau in the treasury department to have supervision of matters pertaining to public health. The report was adopted. Several other committees made reports.

THE Southern Surgical and Gynecological Association will hold its fourteenth annual meeting at Richmond, Va., November 12, 13 and 14, 1901. The officers are: President, Manning Simons, Charleston; vice-presidents, Geo. H. Noble, Atlanta, and L. C. Boshier, Richmond; secretary, W. D. Haggard, Jr., Nashville; treasurer, Floyd W. McRae, Atlanta; council, Geo. J. Engelman, Boston; Ernest S. Lewis, New Orleans; George Ben Johnston, Richmond; L. McLane Tiffany, Baltimore; Lewis S. McMurtry, Louisville; chairman committee of arrangements, George Ben Johnston, Richmond. A large and excellent pro-

gram has been prepared. All railroads will give one and one-third rate fare on the certificate plan. Membership blanks may be had upon application. Titles of papers or corrections should be sent at once to W. D. Haggard, Jr., secretary, Nashville, Tennessee.

THE Buffalo Academy of Medicine held meetings during the month of October, 1901, as follows:

Section on Surgery.—Tuesday evening, October 1. Program: Spasmodic torticollis and its surgical treatment, C. A. Hamann, Cleveland. Discussion opened by Eugene A. Smith and J. W. Putnam.

Section on Medicine. Tuesday evening, October 8. Program: Dyspeptic asthma, Max Einhorn, New York City; Recurrent vomiting, Allen A. Jones; discussion opened by Charles G. Stockton and A. L. Benedict.

Section on Ophthalmology, Otology, Laryngology, and Rhinology.—Monday evening, October 14. Program: Exophthalmic goiter; its symptoms, diagnosis, pathology and treatment, Casey A. Wood, Chicago; discussed by A. A. Hubbell, W. C. Krauss and J. W. Putnam. The treatment of the commonest forms of deafness, Geo. F. Cott.

Section on Pathology.—Tuesday evening, October 15. Program: The present status of our knowledge of the innervation of the heart, Frederick C. Busch. Vegetating dermatitis developing during the course of infantile eczema, Herman K. De Groat.

AT THE 27th annual meeting of the Mississippi Valley Medical Association held at Put-in-Bay, the following officers were elected for the ensuing year: President, S. P. Collins, Hot Springs, Ark.; first vice-president, J. C. Culbertson, Cincinnati; second vice-president, Paul Paquin, Asheville; secretary, Henry Enos Tuley, Louisville; treasurer, Thos. Hunt Stucky, Louisville; chairman committee of arrangements, A. H. Cordier, Kansas City. The next meeting is at Kansas City, Mo., October, 1902.

THE Erie Railway Surgeons Association held its tenth annual meeting at Buffalo, October 16, 1901, under the presidency of

Dr. W. L. Cuddeback, of Port Jervis. The program announced ten scientific papers with discussions; the president's address on The railroad company, the employee and the railroad surgeon, their mutual relation; and a clinic by Dr. C. M. Daniels, of Buffalo, at the new Buffalo Hospital.

THE Homeopathic Medical Society of the State of New York held its semi-annual meeting in Buffalo, September 24-26, 1901. Dr. J. S. Greenleaf, of Owego, is the president, and Dr. D. G. Wilcox, of Buffalo, is the secretary.

THE New York State Medical Association held its eighteenth annual meeting at New York, October 21-24, 1901. An excellent program was presented and the meeting, which is still in session at this writing, appears to be a scientific and well attended medical gathering. Physicians from Buffalo in attendance are: Drs. Bernard Cohen, Geo. F. Cott, W. H. Thornton, C. A. Wall, Julius Ullman, A. A. Hubbell, I. P. Lyon, A. T. Lytle, A. G. Bennett, J. F. Krug, F. M. O'Gorman, C. H. Woodward and C. G. Stockton.

THE Lake Erie Medical Society held its regular quarterly meeting at Hotel Eggleston, Dayton, N.Y., Friday, October 4, 1901. Papers were presented as follows: Smallpox, William A. Putnam, Silver Creek; The smallpox problem and its difficulties, Ernest Wende, Health Commissioner of Buffalo; The differential diagnosis of infectious diseases, W. M. Ward, North Collins; The differential diagnosis of some eye diseases, Lorenzo Burrows, Buffalo.

COLLEGE NOTE.

THE University of Buffalo began its fifty-sixth regular collegiate session September 30, 1901, the opening lecture being delivered by Dr. F. C. Busch, professor of physiology. There was a large attendance of students and the college year made an auspicious beginning. Professor Busch reviewed the progress of medicine and surgery during the past century and spoke of the usefulness of the University of Buffalo in contributing to the general stock of medical learning. His address was well received.

BOOK REVIEWS.

A MANUAL OF SURGICAL TREATMENT. By W. WATSON CHEYNE, M. B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc.; and F. F. BURGHARD, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In seven imperial 8vo volumes, with illustrations. Volume V., 482 pages with 145 illustrations. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$5.00 net.]

Cheyne and Burghard do not show any signs of getting tired as their work proceeds, and the fifth volume comes from the press with all the freshness and enthusiasm which marked the very first of the work. It is rare indeed that one finds any semblance of style in medical publications, or the slightest trace of literary merit; yet in all the work of these two eminent men of England, one detects a distinct flavor of literature in the writing of scientific matters, and in some places it actually bursts forth a delightful bloom of gracefully turned phrases, in which the information imparted is beautifully draped in simple unaffected language, which might well be imitated by some of the more pretentious of the American medical writers.

There are no orthographic gymnastics, no high and lofty tumbling with the English language, but a plain and simple statement of facts and conditions, presented in such a manner as to inspire confidence and respect. There are few if any writers on this side of the great waters who have turned out a work on surgery which can compare with Cheyne and Burghard in this regard. Probably the reason for this is that the greater number of works in this department have been of a composite character—systems in which a dozen or more men have had a hand, and which very naturally under the circumstances were nothing more or less than scientific and literary patch work. Individually, each department of an American work is a jewel; it is so in Park's surgery, and in Agnew's,—works which inspire the confidence which is so necessary and which is so lamentably lacking, so woefully wanting in many American books. Had these two men infused their style into the practice of their co-laborers we would have on our shelves today two works on surgery which would forever be scintillating gems in scientific literature. As it is, they did no such thing and while the works are brilliant individually, it has been left for Cheyne and Burghard to give us a thoroughly comfortable series of volumes on surgery.

They are really "heart-to-heart talks" on surgery and one feels as if he were receiving personal instruction when reading them. The fifth volume, just issued, is divided into two sections. The first deals with the surgical affections of the head and face, and includes the scalp and skull; intracranial injuries and suppuration; hernia cerebri; meningocele, encephalocele and micro- and hydrocephalus; focal epilepsy and brain tumors. Of the affections of the face are wounds, ulcers and

new growths; fractures of the nasal bones; affections of the lips; neuralgia; plastic surgery of the face, hare-lip and cleft palate; fractures, tumors and inflammations of the jaws; congenital deformities of the larynx and trachea; cut throat; foreign bodies in the air-passages; operations; cancer.

In the second section devoted to intrinsic diseases of the nose, ear and larynx detail has not been lost sight of, and it has been practically made a specialist's section. For the nose are given the anatomy, examination, deformities, inflammatory affections and sequelæ; chronic infectious diseases and neuroses. The ear and larynx are handled in the same manner of completeness.

In this division, credit for the preparation of which is given to Dr. Lambert Locke, there is not noticeable any difference in the style of presentation. The material may be Locke's but the handiwork of Cheyne and Burghard is plainly in evidence. There are the same gracefully turned sentences, the same confidential tone, the same feeling of personal interest which is so apparent in those portions of the work which are directly from the pens of these English surgeons.

With few exceptions the illustrations are original, and these are the presentation of instruments.

There are two other volumes to be issued before the work is completed and they cannot come too soon.

N. W. W.

CLINICAL PATHOLOGY OF THE BLOOD. A treatise on the general principles and special applications of Hematology. By JAMES EWING, M. D., Professor of Pathology in Cornell University Medical College, New York City. In one handsome octavo volume of 432 pages, with 28 engravings and 14 full-page plates in colors. Just ready. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$3.50 net.]

The rapid advances in the knowledge of the pathology of the blood and the application of this knowledge in clinical diagnosis is the reason the author gives for the preparation of the present volume. He has striven and succeeded in giving a practical account of the changes in the blood and the relation between these changes and morbid states of the system, and the bearings on diagnosis and treatment are obvious and direct. Much of the information contained in this book is inaccessible to the general reader, being found only in monographs, or in hospital reports; these the author has sifted and the information thus secured has been incorporated in the respective chapters.

Ewing divides his work into VI. parts with an introduction on the interpretation of analysis of the blood, and advises that "the results of examination are to be interpreted only in the light of the fullest possible clinical information." Chapter I. deals with the general physiology and pathology of the blood, describing technics, chemistry, morphology and physiology of the red cells, the leukocytes, and the development of the blood cells. Part II. deals with the blood diseases, such as chlorosis,

leukemia, progressive pernicious anemia, and pseudo-leukemia. Part III. takes up the acute infectious diseases; Part IV. the constitutional diseases; Part V. the general visceral diseases, and Part VI. the animal parasites. The features of the book are the beautiful full-page colored plates, 14 in number and the surprisingly complete list of references to the bibliography at the end of each chapter,—features well worth the price of the book alone. The book is well bound and printed. W. C. K.

HARRINGTON'S PRACTICAL HYGIENE. For Students and Practitioners of Medicine and Medical Officers. By CHARLES HARRINGTON, M. D., Assistant Professor of Hygiene in Harvard Medical School, Boston. In one very handsome octavo volume of 718 pages, with 105 engravings and 12 full-page plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co. 1901. [Cloth, \$4.25, net.]

This work treats of a subject of great practical importance not only to physicians but to every person of intelligence. It is, moreover, one in which great changes and advances have been made within the last few years. We believe it is a subject inadequately taught in most medical schools. Improvements, however, in this direction can be stimulated by state medical examining boards. These latter should institute rigid examinations in hygiene, sanitation and prophylaxis. It is highly important that the young physician shall be well equipped in everything pertaining to the science and art of conserving the health, energy and welfare of the individual as well as the community.

Harrington has prepared a book essentially for the student—one which deserves to be well studied by undergraduates. It is impossible to compass hygiene in its entire domain in a single volume, hence later it will become essential to obtain larger works where certain topics of wider range can be found. But this volume is a complete, practical, authoritative exposition of the subject as it now exists and should be eagerly sought by every student in medicine.

PULMONARY CONSUMPTION, PNEUMONIA AND ALLIED DISEASES OF THE LUNGS. Their Etiology, Pathology and Treatment, with a chapter on Physical Diagnosis. By THOMAS J. MAYS, A. M., M. D., Professor of Diseases of the Chest in the Philadelphia Polyclinic: Visiting Physician to Rush Hospital for Consumption. Octavo, pages, 539. Illustrated. New York: E. B. Treat & Company. 1901. [Price, \$3.00.]

This author is well known for his studies of pulmonary affections, through his published essays. He says that the underlying cause of this book is that he has conceived in the last thirty years some ideas that run counter to accepted teachings. He believes that pulmonary phthisis is generally a neurosis primarily, and that disintegration is secondary; that agents, influences, or conditions which jeopardise the integrity of the nervous system tend to develop pulmonary disease, especially phthisis; that remedies

to be effective must act through the nervous system; that the counter-irritant action of nitrate of silver hypodermatically administered over the vagi in the neck is of special value; and that acute pneumonia and other forms of acute pulmonary disease are closely affiliated with disorder of the nervous system.

How well these views of cause, pathology, and cure are sustained must be determined by a careful reading of the author's pages. At all events, some interesting facts are presented and the book is a contribution of value to the study of pulmonary diseases and especially consumption.

PRINCIPLES OF SURGERY. By N. SENN, M. D., Ph. D., LL. D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-chief to St. Joseph's Hospital; Surgeon-General of Illinois. Third edition, thoroughly revised, with 230 wood-engravings, half-tones and colored illustrations. Royal octavo, pages, xiv.—700. Philadelphia: F. A. Davis Co. 1901. [Extra cloth, \$4.50 net; sheep or half-russia, \$5.50 net.]

The first appearance of this work, eleven years ago, marked an epoch in surgical literature. The author has been for so long a time a teacher of prominence and a voluminous author that whatever he says is entitled to weight. The student of medicine should become well grounded in the principles of surgery before undertaking to acquire a technical knowledge of the practice of the art. He must become familiar with the processes of bone repair before attempting to adjust and dress a fractured femur.

This third edition has been very thoroughly revised in its text while many additions have been made. Two new chapters, one on "Degeneration," and the other on "Blastomycetic Dermatitis," have been added, together with many new illustrations, most of the latter being original. It goes without saying that this edition will receive the same favor that was accorded the others. It is a standard work that should be found in every surgeon's library.

LECTURES UPON THE PRINCIPLES OF SURGERY. Delivered at the University of Michigan. By CHARLES B. NANCREDE, A. M., M. D., LL. D., Professor of Surgery and Clinical Surgery; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic, etc., etc. With an appendix containing a résumé of the principal views held concerning inflammation. By WILLIAM A. SPITZLEY, A. B., M. D., Senior Assistant in Surgery, University of Michigan. Illustrated. Philadelphia: W. B. Saunders. 1899. [Price \$2.50.]

This author has presented to surgeons the principles of the art in most readable and accessible form,—well adapted to the needs of the undergraduate.

Nancrede has discussed the important points pertaining to surgical principles, such as inflammation, surgical fever, hemorrhage and hemostasis, with great clearness. There are many other questions connected with the subject that it would be interesting to discourse upon, but in this somewhat belated

notice it will not be expedient or necessary to do so. By some mischance the work escaped review at the proper time, and we can only say we very much regret that so good a book should have been overlooked. We now must content ourselves with saying that Nancrede has made an admirable contribution to the literature of present-day surgery, which is saying a good deal in these days of good surgical treatises.

A SYLLABUS OF NEW REMEDIES AND THERAPEUTIC MEASURES. With chemistry, physical appearance and therapeutic application. By J. W. WAINWRIGHT, M. D. Duodecimo, pp. 224. Chicago: G. P. Engelhard & Co. 1901.

The preface of this little work explains itself better than a reviewer's pen can do, and the following abstract will show the aim and scope of the book:

Synthetic chemistry has added many new remedies to the physician's armamentarium, and the knowledge of these becomes day by day more extended as their application is better understood, but the curricula in our schools do not include them, many otherwise admirable books ignore them, and thus force the progressive practitioner to accept interested literature or the statement of, usually, non-professional men. It may be asked from what source can one obtain authoritative and disinterested information regarding these products? There can be but one answer: from the published clinical reports appearing in medical literature, mostly journals, from time to time. Yes! but the busy practitioner or student does not have the opportunity, the time or means to consult this great number of journals or works, nor to condense the information therein contained into a compass sufficiently brief, yet comprehensive to furnish him with the practical or useful part. It has been the aim of the author to do this conscientiously, accurately, and with due regard to the wants of the busy man.

The articles treated of are few, when compared with the multitude which are offered the profession, and only those, therefore, which have passed the experimental stage, which have become necessary ones, are included. Further, only those products whose chemistry is known, or whose exact formula are given, appear. Therapeutic measures other than those coming from the laboratory are also treated of, as a number of them have a most important place in the therapeutics of today.

W. C. K.

A PRACTICAL TREATISE ON SIMPLE AND CHRONIC SPECIFIC URETHRITIS. By J. HENRY DOWD, M. D., late Genito-Urinary Surgeon at the Buffalo Hospital of the Sisters of Charity: formerly Chairman of the Surgical Section of the Buffalo Academy of Medicine. Illustrated 16mo, pp. xxxi.—135. Buffalo: A. W. Landsettle. 1901. [Price, \$1.50.]

In this excellent monograph the author has rendered an excellent service to every physician interested in the study or cure of gonorrheal infection. He has placed within easy reach

of every such physician, a compact and scientific grouping of essential facts pertaining to the diagnosis and treatment of gonorrhea. Of special importance is it to know when the infection ceases to be virulent or when it can no longer be conveyed. Dr. Dowd has contributed much to make this greatly misunderstood part of the subject clearer, and we hope his useful book will be read by every physician who is called upon to treat the diseases with which it deals.

INTRODUCTION TO THE DIFFERENTIAL DIAGNOSIS OF THE SEPARATE FORMS OF GALLSTONE DISEASE; based upon his own experience gained in 433 laparotomies for gallstone. By PROFESSOR HANS KEHR, Helbersadt. Authorised translation by William Wotkyns Seymour, A. B. (Yale), M. D. (Harvard); formerly Professor of Gynecology in the University of Vermont; Fellow of the American Association of Obstetricians and Gynecologists; Surgeon to the Samaritan Hospital, Troy. Octavo, pages 359. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$2.50.]

The surgery of biliary tract, of comparatively recent adoption as an accepted procedure in gall-stone disease, has made a wonderful record in the lives it has saved and the relief it has brought to mankind. The translator of this valuable work, himself, has been cured of the disease by cholecystotomy, at the hands of Mr. Lawson Tait, and has made over thirty operations for its relief in others.

The author has done more gall-stone operations than any other living surgeon, and his success has been remarkable—3.3 mortality in 422 operations. It is easily understood how such a record confers *ex cathedra* authority upon the operator, who becomes more certain of his technique with each succeeding operation.

This is one of the most valuable recent contributions to surgical literature; it is one of the really and importantly good books to issue, in the midst of many indifferent ones, and will attract the attention of every physician or surgeon who treats gall-stone disease.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By DR. HERMAN EICHHORST, Professor of Special Pathology and Therapeutics and Director of the Medical Clinic in the University of Zurich. Translated and edited by Augustus A. Eshner, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic. Two octavo volumes of over 600 pages each; over 150 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, per set, cloth, \$6.00 net.]

A book on medicine from the German is always noted for its accuracy of detail. Eichhorst's treatise is no exception to this established rule. The translation by Eshner, is good rendering into smooth English of concise text, with such additions as are required to adapt it to our needs. The articles on the skin, venereal diseases, impotence and sterility in the male, and spermatorrhea are added to the usual contents of a work on practice, and will be found of great value to the general physician.

The classification employed by this author is excellent and the display type of heads and subheads is attractive to the eye. A number of good illustrations, some by the author and others by the translator, serve to explain the text here and there with clearness, while the publication of the work in two volumes adds to its convenience. It will be regarded by every student of internal medicine as a distinct addition to our literary resources, and is welcomed not only on that account, but because of its intrinsic merit as a guide to the diagnosis and treatment of disease.

CONTEMPORARY CELEBRITIES FROM THE ALBUM MARIANI OF PARIS, FRANCE.
New York: Published by Mariani & Co., 52 West 15th Street. 1901.

This beautiful collection of portraits is a credit to Mr. Mariani, and is artistically one of the choicest of its kind. It contains the pictures of many well-known personages, representing royalty, composers, authors, academicians, professional men, army and navy officers, artists and other celebrities. They are well executed wood-cut engravings, printed on heavy paper, and the album constitutes a souvenir of great value, which attests the popularity of Mr. Mariani and his wine of coca or "Vin Marani," as it is most appropriately named.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.
Volume XIII. Thirteenth annual session, held at Atlanta, Ga., November 12, 14 and 15, 1901. Secretary, Dr. W. D. Haggard, Jr., Nashville. Philadelphia: W. J. Dornan, Printer. 1901.

This splendid volume is replete with papers full of scientific interest relating to general surgery and gynecology. Several of the contributions are well illustrated and the discussions are all that could be desired to elaborate and strengthen the several points made by the authors.

If there were any doubts in the minds of the Fellows of the association as to the propriety of publishing its transactions in permanent form, a careful examination of this book would at once dispel them. The preparation of the volume exhibits great care on the part of the accomplished secretary, and it will prove a stimulus to further progressive work on the lines laid down by the founders of the association.

TRANSACTIONS OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION. Twenty-sixth annual session, held at Asheville, N. C., October 9, 10 and 11, 1900.
Volume II. Henry E. Tuley, M. D., Secretary.

This handsome volume is the second one to issue from this active association, although it has been organized for 26 years. It is largely due to the energy of Dr. Tuley, the present efficient secretary, that the association was induced to publish its work in an annual volume. The wisdom of this action is apparent to every experienced physician. While the publication of the pro-

ceedings and the papers in the journals is proper, yet these become scattered and in a few months are unavailable; whereas, in a compact and well-edited volume like the one at hand, reference can be made in a moment to the fact in question. It is doubtful policy for a medical society to publish a journal, but wise for it to issue such a volume of transactions as this one, and we congratulate the secretary and all concerned upon the success in this direction that has been reached.

THE JOHNS HOPKINS HOSPITAL REPORTS. Volume X., Nos. 1 and 2. Baltimore: The Johns Hopkins Press. 1901.

The contents of this report will prove of great interest to microscopists and bacteriologists. The structure of malarial parasites is just now a study of importance; the bacteriology of cystitis, pyelitis, and pyelonephritis in women, is also important; and the rare report on the infection with *strongyloides intestinalis*, all of which are herein considered, will entitle the brochure to the favor of those who are pursuing studies in these subjects.

BOOKS RECEIVED.

Dose-Book and Manual of Prescription-Writing: with a List of Official Drugs and Preparations, and the more important Newer Remedies. By E. Q. Thornton, M. D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Second Edition, Revised and Enlarged. Octavo, 362 pages, illustrated. Philadelphia and London: W. B. Saunders & Company, 1901. [Bound in flexible leather, \$2.00 net.]

The Principles of Hygiene: A Practical Manual for Students, Physicians and Health Officers. By D. H. Bergey, A. M., M. D., First Assistant, Laboratory of Hygiene. University of Pennsylvania. Octavo volume of 495 pages, illustrated. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$3.00 net.]

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Third edition, thoroughly revised and enlarged. Royal octavo, 873 pages, with 704 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$5.00 net.]

Pathological Technique. A Practical Manual for Workers in Pathological Histology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank P. Mallory, A. M., M. D., Associate Professor of Pathology, Harvard University Medical School; and James H. Wright, A. M., M. D., Instructor in Pathology, Harvard University Medical School. Second edition, revised and enlarged. Octavo, 432 pages, with 137 illustrations. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$3.00 net.]

Human Physiology. Prepared with special reference to Students of Medicine. By Joseph Howard Raymond, A. M., M. D., Professor of Physiology and Hygiene in the Long Island College Hospital, and Director of Physiology in Hoagland Laboratory, New York City. Second edition, entirely rewritten and greatly enlarged. Handsome octavo volume of 668 pages, 443 illustrations, 12 of them in colors, and 4 full-page lithographic plates. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$3.50 net.]

A Laboratory Course in Bacteriology. For the use of Medical, Agricultural, and Industrial Students. By Frederic P. Gorham, A. M., Professor of Biology, Brown University; Bacteriologist to the Health Department, Providence, R. I. 12mo volume of 198 pages, with 97 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. [Cloth, \$1.25 net.]

Atlas and Epitomé of Special Pathologic Histology. By Docent Dr. Herman Bürck, of the Pathologic Institute of Munich. Edited by Ludvig Hektoen, M. D., Professor of Pathology in Rush Medical College, Chicago. Vol. II.—Liver; Urinary Organs; Sexual Organs; Nervous System; Skin; Muscles; Bones. With 123 colored illustrations on 60 lithographic plates and 192 pages of text. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$3.00 net.]

Modern Obstetrics: General and Operative. W. A. Newman, Dorland, A. M., M. D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Associate in Gynecology, Philadelphia Polyclinic. Second edition, rewritten and greatly enlarged. Handsome octavo, 797 pages, with 201 illustrations. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$4.00 net.]

A Text-Book of Diseases of Women. By Charles B. Penrose, M. D., Ph. D., formerly professor of Gynecology in the University of Pennsylvania. Fourth edition, revised. Octavo volume of 439 pages, handsomely illustrated. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$3.75 net.]

A Manual of the Practice of Medicine. By George Roe Lockwood, M. D., Professor of Practice in the Woman's Medical College of the New York Infirmary. Second edition, revised and enlarged. Octavo volume of 847 pages, with 79 illustrations and 20 full page plates. Philadelphia and London: W. B. Saunders & Company, 1901. [Cloth, \$4.00 net.]

Diseases of the Digestive Organs in Infancy and Childhood. With Chapters on the Diet and General Management of Children, and Massage in Pediatrics. By Louis Starr, M. D., late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Consulting Pediatricist to the Maternity Hospital, Philadelphia, etc. Third edition, rewritten and enlarged. Illustrated. P. Blakiston's Son & Co., Philadelphia, 1901. [Price, \$3.00 net.]

The Principles and Practice of Medicine. Designed for the use of Practitioners and Students. By Wm. Osler, M. D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in the John Hopkins University and Physician-in-Chief to the John Hopkins Hospital, Baltimore, etc. Octavo, pp. 1200. Fourth edition. New York: D. Appleton & Company, 1901. [Price, cloth, \$5.50; sheep, \$6.50; half-morocco, \$7.00]

Pediatrics. The Hygienic and Medical Treatment of Children. By Thomas Morgan Rotch, M. D., Professor of the Diseases of Children, Harvard University. Third edition, rearranged and rewritten. Octavo pp. 1042. Illustrated by numerous engravings in the text and by colored plates. Philadelphia and London: J. B. Lippincott Company, 1901.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, M. D., LL. D. Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital, Philadelphia; Physician to the Philadelphia Hospital for Diseases of the Skin, etc. Octavo, pp. 905. Fourth edition, revised and enlarged, New York: D. Appleton & Company, 1901. [Price, cloth, \$5.00; sheep, \$6.00.]

A Manual of Bacteriology. By Herbert U. Williams, M. D., Professor of Pathology and Bacteriology in the Medical Department of the University of Buffalo. With ninety illustrations. Second edition, revised and enlarged. P. Blakiston's Son & Co., Philadelphia, 1901. [Price, \$1.50 net.]

The Technique of Surgical Gynecology. Devoted exclusively to a description of the technique of gynecological operations. By Austin H. Goelet, M. D., Professor of Gynecology in the New York School of Clinical Medicine. Duodecimo, pp. 340. Illustrated. New York: International Journal of Surgery Co. 1901.

Warwick of the Knobs. A story of Stringtown County, Kentucky. By John Uri Lloyd, Author of "Stringtown on the Pike," etc. With photographic illustrations of Knob County. New York: Dodd, Mead & Company. 1901. [Price, \$1.50.]

Transactions of the Rhode Island Medical Society. Volume VI., Part II. George D. Hersey, Librarian. 1900.

The Physician's Pocket Account Book. Consisting of a manila-bound book of 208 pages and a leather case. By J. J. Taylor, M. D. Philadelphia: Published by The Medical Council, Twelfth and Walnut Streets. [Price, \$1.00 complete; subsequent books to fill the case, 40 cents each, or three for \$1.00.]

Transactions of the Medical Association of the State of Alabama (The State Board of Health). Annual meeting held at Selma, April 16-19, 1901. G. P. Waller, M. D., Secretary.

A Text-Book of Bacteriology. By George M. Sternberg, M. D., LL. D., Surgeon-General U. S. Army; Ex-President of the American Medical Association and of the American Public Health Association, etc. Octavo, pp. 718. Illustrated by heliotype and chromo-lithographic plates and 200 engravings. Second revised edition. New York: William Wood & Co. 1901. [Price, cloth, \$4.50 net; brown sheep, \$5.25 net.]

A Guide to Lectures and Laboratory Work for Beginners in Chemistry. Specially adapted for students of medicine, pharmacy and dentistry. By W. Simon, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition, thoroughly revised and much enlarged. In one octavo volume of 613 pages, with 66 engravings, 1 colored spectra plate and 8 colored plates representing 64 of the most important chemical reactions. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$3.00 net.]

Progressive Medicine. Volume III., September, 1901. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 428 pages, 16 illustrations. Philadelphia and New York: Lea Brothers & Co. [Per annum, in four cloth-bound volumes, \$10.00.]

Report of the Commissioner of Education for the Year 1899-1900. Volume I. Washington: Government Printing Office. 1901.

Materia Medica, Pharmacy, Pharmacology and Therapeutics. By W. Hale White, M. D., F. R. C. P., Physician to and Lecturer on Medicine at Guy's Hospital, London; Author of A Text-Book of General Therapeutics. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Medicine and Therapeutics at the New York Post-Graduate Medical School and Attending Physician to the Hospital; Visiting Physician to St. Mark's Hospital; President of the American Therapeutic Society; Fellow of the American Academy of Medicine, etc. Fifth American edition, thoroughly revised. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$3.00 net.]

Twentieth Annual Report of the State Board of Health of New York. For the year ending December 31, 1899. Transmitted to the legislature February 15, 1900. Albany: James B. Lyon, State Printer. 1901.

Handbook on Sanitation. A manual of theoretical and practical sanitation. For students and physicians; for health, sanitary, tenement house, plumbing, factory, food and other inspectors; as well as for candidates for all municipal sanitary positions. By George M. Price, M. D., Medical Sanitary Inspector, Department of Health, New York City; Inspector New York Sanitary Aid Society of the 10th Ward, 1885; Manager Model Tenement-houses of the New York Tenement-house Building Company, 1888; Inspector New York State Tenement-house Commission, 1895. Duodecimo, pp. 329. Illustrated. New York: John Wiley & Sons. 1901. [Price, \$1.50 net.]

LITERARY NOTES.

MESSRS. BATTLE & CO., St. Louis, have issued chart No. 5 of the series, illustrating the fractures of the long bones. This chart delineates fracture of fibula, with dislocation of foot outward,—Pott's fracture.

THE Enno Sander prize has for 1901-1902, been generously increased by its founder to consist of a gold medal, valued at \$100 and \$100 in cash. The subject for this year is, The most practicable organisation for the medical department of the United States army in active service. The conditions are that it is open to competition by all persons eligible to active or associate membership in the association of military surgeons of the United States; that essays must consist of not less than 10,000 nor more than 20,000 words, and that they must reach the secretary of that association, Carlisle, Pa., not later than February 28, 1902.

THE Nicholas Senn prize medal will be conferred upon that member of the American Medical Association who shall present on or before March 1, 1902, the best essay on some surgical subject. Communications may be addressed to any member of the committee, consisting of the following: Dr. Herbert L. Burrell, 22 Newbury Street, Boston, Mass.; Dr. Edward Martin, 415 S. 15th Street, Philadelphia, Pa.; Dr. Charles H. Mayo, Rochester, Minn.

ITEM.

THE Rio Chemical Company announces the removal of their office from St. Louis to 56 Thomas Street, New York City. The reasons for this change as given by this celebrated house are that their business has grown to such proportions, that they desire to be where they could have better facilities for procuring the various ingredients that enter into the composition of their preparations and thus preserve that uniformity that is so important, and to be more in touch with, their foreign offices. Their foreign business has grown to such proportions, that there is scarcely a country in the world where educated physicians do not use their products.

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ORIGINAL COMMUNICATIONS.

Spasmodic Torticollis and its Surgical Treatment.¹

By C. A. HAMANN, M. D., Cleveland, O.,

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WE designate as spasmodic torticollis an affection characterised by tonic or clonic spasms of certain muscles of the neck, by which the head and cervical spine are rotated in one or other direction, or drawn directly backward, depending upon the degree and extent of muscular involvement.

This disease is to be regarded as totally distinct from congenital wry-neck, from rheumatic torticollis, and from the torticollis due to cicatricial contraction, myositis or disease of the cervical vertebræ. It is an affection primarily of the nervous system, either central or peripheral, and in its manifestations is allied to facial spasm and to writer's cramp.

SYMPTOMS AND CLINICAL HISTORY.

The first evidences of its existence, as a rule, are spasmodic contractions of the sterno-cleido-mastoid muscle. Associated with these, or perhaps preceding them, there may be painful or uneasy sensations in the neck, occiput, post-auricular region, shoulder or arm. Cases have also been described in which there was at first dizziness, and others in which there was a tendency to deviate to one side (Gowers).

The spasms gradually become worse. They may be present only during excitement or when the patient is tired. In a very few cases the disease is fully developed in a very short time—say a few days or a week. The head is turned to one side or other, depending upon which sterno-cleido mastoid is involved. As is well known the action of this muscle is to rotate the head so that the chin looks to the opposite side and upward; the head is

1. Read before the Section on Surgery, Buffalo Academy of Medicine, October 1, 1901.

inclined to the same side. The contractions may be tonic or clonic. In the latter form the frequency of the contractions varies greatly. Irritation, as by compressing the muscle may bring on spasm; the muscle stands out prominently, and in time may become hypertrophied. The spasms cease during sleep.

In one of my cases the patient could with difficulty get no sleep, however, owing to her head boring itself into the pillow, as she expressed it. A common occurrence is to find a combination of the tonic and clonic spasms. Rarely both sterno-cleido-mastoids are involved. It may be mentioned in this connection that the usual statement that contraction of both sterno-cleido-mastoids at once causes flexion of the head is incorrect; it produces retraction owing to the fact that the muscles are inserted posterior to the point of articulation of the occipital bone with the atlas. This fact was long ago pointed out by Hyrtl. The German name "Kopfnicker" is therefore an inappropriate one for this muscle.

After a time other muscles participate in the contractions; this progressive involvement of certain other muscles is seen in most cases, and is one of the most disagreeable features of the disease. Probably by the time that the patient presents himself for treatment, the process will have passed beyond the sterno-mastoid.

In a large group of cases, the sterno-mastoid on one side and the splenius capitis and other rotator muscles of the other side are involved. The contraction of these posterior cervical muscles can be seen and felt, and one should never neglect to examine them in cases of spasmodic torticollis. Contractions of the sterno-mastoid of one side and the splenius of the other, have the same effect as regards rotating the head. Usually the head is drawn backward in such a case, owing to the greater strength of the posterior muscles. The other muscles which in time become involved, are the trapezius, complexus, trachelo-mastoid, obliqui, recti capitis postici, platysma and even the scaleni.

When the post-cervical muscles on both sides contract, the head is drawn backward—a condition known as retro-colic spasm. Occasionally the sterno-mastoid and posterior muscles of the same side are the seat of the spasm.

According to Gowers the muscles that turn the face to the left are much more often the seat of contraction than those which turn it to the right. It so happens that in all the cases of which I have notes—four in number—the face was turned to the

left. The frequency of the contractions varies. However, it is rare to find them absent for more than a few minutes. Excitement increases their number and intensity. In many cases there is more or less tremor, so that there is a nodding movement of the head, or combined with the nodding movements, lateral motion. Other muscles than those of the neck may become involved, as those of the face or arm.

When there is much spasm, the patient is, of course, very uncomfortable; the muscles become fatigued, and there is apt to be neuralgic pain. As time goes on, the condition of the patient becomes almost unendurable, and some persons become tired of existence and are willing to undergo almost anything for the sake of relief. Work is impossible and pleasures cannot be participated in. Patients attempt to hold the head with the hands, or rest it against a chair.

The gradual progressive course of the disease may cease after a time and the patient's condition may remain unaltered. In a few cases the spasms cease spontaneously, or become much less intense. It may be said that the disease does not lead to any other serious disturbance of the nervous system, nor does it shorten life.

Etiology.—A number of causes of this disease are mentioned by writers—perhaps we had better say “preceding conditions,” for the actual etiology is by no means always apparent. It is much more common in adults than in children.

Sex is a predisposing cause, for the affection is much more common in women than in men, according to Gowers. Osler makes the opposite statement. It is found that neurotic persons, or those with a family history of nervous affections or insanity sometimes become subjects of this disease. Melancholia, hysteria, depressing emotions, tremors and spasms of various sorts, worry and anxiety may precede it. In some cases there is a history of a chronic disease or loss of health and strength. Injuries precede it in a few cases.

A cause, which, in my opinion, is a very important and common one, is prolonged and excessive, or oft-times repeated contractions of the sterno-mastoid and other rotator muscles. Thus Annandale records a case of a girl, who “in the course of her work as a weaver, turned her head rapidly first to one side and then to the other, but especially to the left, and in the spasm the head was inclined and rotated to the left side”—Gowers. Walton lays stress on the influence that certain ocular defects,

as oblique astigmatism and muscular insufficiencies have in producing spasmodic wry-neck. These defects produce a habit of turning the head in certain directions and spasmodic contractions of the muscles gradually come on.

In two of my cases, oft repeated contractions of one sterno-mastoid certainly seemed to be the causal factor. In one of these cases, the patient was deaf on the left side, and in the course of her occupation as a saleswoman, repeatedly turned her face to the left, so that she might hear with her right ear; gradually the involuntary, intermittent contractions of the right sterno-cleido-mastoid muscle came on.

In another case, the patient, who was an engineer on a switch engine, had to turn his head many times a day so as to look back over his left shoulder. In time spasmodic and involuntary contractions of the right sterno-mastoid developed.

The causal relations of repeated voluntary muscular contractions in these two cases seem to me quite clear. Whether an irritable state of the muscles alone is set up in such cases, or whether the protracted excessive use of the centers of rotation in the cerebral cortex leads to an exaggerated irritability of these centers is not positively known.

Gowers refers to a person in whom the spasms were brought on by the patient's nodding vigorously while speaking; this habit had existed for many years. Walton mentions the possibility that toxins, acting upon the cortical cells, may produce the disease, and he alludes to a case, recorded by Simon, in which malaria was the causative factor; the patient was cured by the administration of quinine.

Some cases of spasmodic torticollis are of hysterical origin—or at any rate are associated with other hysterical stigmata. Distant peripheral irritation, as by intestinal parasites, is said to have been the cause in a few cases.

Pathology and Pathogenesis.—This is a very obscure part of our subject. I know of no cases in which a careful post-mortem examination has been made, with the exception of one, referred to by Dana. I have only seen a very brief report of his case in a discussion in the American Neurological Association. Dana found a "chronic leptomeningitis of the convexity, with some degeneration of the cells." The fact that the disease is not fatal explains the non-existence of post-mortem findings. In reality therefore we can only surmise the pathology of the affection, though there are certain facts which point to the correctness of

the view that it is a disease of cortical origin, in some cases at least. A lesion to produce the symptoms described, must be one of an irritative character, for a destructive lesion would, of course, cause paralysis. As Mills points out, such a focal lesion could also be in the upper portion of the cord, in the membranes, bones or nerves outside of the cord, but intraspinal, in the spinal accessory nerve, in the posterior part of the medulla, or in the nerves which communicate with the spinal accessory, as the second and third cervical. One can imagine that irritation of the upper cervical nerves, which are in communication with the spinal accessory, might lead to spasmodic contractions of the sterno-mastoid. Histologic examination of excised portions of the nerves has not revealed any abnormality.

The statement has been made above that long-continued and oft-repeated contractions of the rotator muscles of the head may lead to tonic or clonic contractions. It is known that such excessive use of muscles may lead to atrophy and degeneration, as is seen elsewhere in the body, in some forms of muscular dystrophy. In other cases, overuse leads to spasm, sometimes accompanied by pain, as witnessed in writer's cramp. In cases of atrophy as well as in spasm from overuse of muscles, the real seat of the trouble is in the nerve centers, and the most commonly held theory of the position of the lesion in spasmodic torticollis, is that it is in the cortex cerebri—in the centers for the movements of the head. The correctness of this theory, however, yet remains to be proven. Gowers alludes to the possibility that disturbance in the lower part of the pons may produce the disease, for it seems that certain structures here have an influence in the rotation of the head.

It is obvious that we cannot locate the lesion in the muscles themselves. When we make the statement that there is present somewhere an abnormal state of the nerve cells, which results in irregular and uncontrolled discharge of nerve-force, we do not really give an explanation of the etiology and pathogenesis of the disease, for we do not know the nature of the process nor can we locate it. Possibly the changes are such that microscopic examination cannot reveal them.

Diagnosis—The diagnosis of the affection under consideration is in the vast majority of cases simple. The congenital form of wry-neck, the rheumatic and other forms are easily differentiated. They are entirely different. There are certain forms of spasmodic rotation of the head around a vertical axis, which should be dis-

tinguished from accessorius spasm. I refer more particularly to the *tic rotatoire* of authors. In this affection, the head is turned intermittently from right to left and from left to right, there being no deviation of the chin or lowering of the mastoid process. Such movements may be produced by contractions of the small rotator muscles forming the suboccipital triangle. While these muscles do become involved in longstanding cases of spasmodic torticollis, still they are not at first the seat of contractions, and *tic rotatoire* is not the same affection as spasmodic wry-neck.

In the diagnosis of the disease under consideration, we should determine, if possible, just what muscles are involved in addition to the sterno-mastoid. A knowledge of the anatomy and physiology of the cervical muscles is, of course, essential in this determination. I have already alluded briefly to the symptoms produced by contractions of the several post-cervical muscles, and mentioned that the contractions can often be seen and felt. As stated above, the most frequent combination with sterno-mastoid spasm is that of spasm of the opposite splenius.

Prognosis.—The prognosis is in general unfavorable, as far as cure is concerned, *i.e.*, it is unfavorable in most cases unless the patient will submit to operative measures. Cases of hysterical origin may recover spontaneously.

The more severe the spasms, the longer the duration, the more muscles that are involved, the less the likelihood that much benefit can be obtained from treatment.

Treatment.—To describe the various forms of treatment that have been resorted to in this affection would be a wearisome and unprofitable task. Most drugs in the Pharmacopœia that have, or are supposed to have, an effect on the central or peripheral nervous system have been used. Some writers claim to have cured cases with certain drugs—others deny the efficiency of these same drugs. From what I gather from the literature, and from what I have seen myself, I have come to the conclusion that there are no drugs whatever, the administration of which results in permanent benefit. Electricity is useless. Mechanical support cannot be borne as a rule.

H. J. Hall reports two cases, one of which was cured, the other much benefited by gentle spring pressure on the back and sides of the neck, this was supplemented by gymnastic exercises designed to improve the general poise and to secure good muscular control throughout the body."

The rest-cure has been resorted to, and according to some

with good results. Others find it of no avail. External applications, and the use of the cautery are not successful. There seems to be no question that massage has helped some patients. Of course, the removal of apparent causes should be the first part of the treatment.

It is well that the various medicinal, mechanical and hygienic measures be given a trial, however. In mild and early cases, they may be of avail. In severe and long-standing cases, the proper treatment and the one that offers good chances for cure, or at any rate improvement, is by operation, either on the nerves or the muscles, or on both. A sufficiently large number of cases is now on record to justify the above statement.

The operative treatment of spasmodic torticollis was originated by Campbell de Morgan, who in 1866 cured a case of this disease by excision of a portion of the spinal accessory nerve. Keen, in 1891 devised a method of operating on the posterior cervical nerves, as did also Noble Smith, in the same year. Gardner claims priority over Keen in the suggestion of the method. In 1895 Kocher, through his assistant, De Quervain, made known his method of operation on the muscles. This, in brief, is a history of the surgical treatment of spasmodic torticollis.

It may be stated here that nerve stretching and simple neurotomy have been shown to be useless, and are therefore discarded. Tenotomy of the sterno-cleido-mastoid, it is needless to say is of no avail.

Resection of a portion of the spinal accessory nerve is a comparatively simple operation. The incision is made along the anterior border of the muscle, extending from a point about half an inch below the tip of the mastoid process, downward for an inch and a half. After exposing the border of the muscle and carefully checking the hemorrhage, the nerve is sought for in the loose tissue exposed. It passes under the border of the muscle, from an inch to an inch and a half below the tip of the mastoid. A landmark of value is the transverse process of the atlas, which the nerve crosses. The posterior belly of the digastric is also seen; the nerve comes from beneath it. It is well to bear in mind the proximity of the internal jugular vein; sometimes the nerve passes over it, sometimes under. When the spinal accessory is not at once seen, its position can be determined by irritating the tissue with a blunt instrument, as Richardson suggests. The instant that the instrument strikes the nerve the

sterno-mastoid contracts. An inch or more of the nerve should be excised. In one case in which I attempted to find the nerve on the cadaver, I was unsuccessful, and the dissection revealed the fact that there was no spinal accessory, or rather that its place was taken by a branch from the second and third cervical nerves. Dandridge records a case in which he failed to find the nerve. In one of my cases I found it entering the muscle three-fourths of an inch lower than normal.

Though the sterno-mastoid receives filaments from the second and third cervical nerves, excision of the spinal accessory completely paralyzes it, the muscle becomes relaxed and subsequently no longer contracts. It undergoes atrophy in time. By this procedure, cases in which the sterno-mastoid is the only muscle which is involved, can be cured. No perceptible interference with the movements of the head results, and the paralysis of the upper part of the trapezius gives no inconvenience. Possibly the shoulder drops slightly. A minor point in the operation that I failed to mention above, is the avoidance of cutting the auricularis magnus nerve, which lies in the superficial fascia, obliquely to the line of the incision. It is well to refrain from cutting it, for the patient may complain, as did one of mine, of a disagreeable numbness of the external ear. When, in addition to the sterno-mastoid, the splenius and other muscles of the other side of the neck are involved, it will be necessary to excise their nerves also, in order to secure satisfactory results.

Keen's method affords a good way of reaching these nerves. I will attempt a description of this procedure, based on numerous operations on the cadaver, and two on the living subject.

The patient is laid on his abdomen, with the head hanging over the end of the table. This places the anaesthetiser in an uncomfortable position. A transverse incision, three inches long across the neck, about on a level with the lobule of the ear, divides the skin, superficial and deep fasciæ, and exposes the trapezius. This muscle is then cut across, and upon raising the upper portion of the muscle, the occipitalis major nerve is looked for. It will be found near the median line, piercing the complexus and entering the trapezius. It is a good-sized nerve and can be easily found, as a rule. It is to be freed from its surroundings, down to where it pierces the complexus. The complexus is then cut transversely. Care is to be taken that the nerve is not divided. The upper portion of the complexus is then raised and the suboccipital triangle exposed. In this tri-

angle near the outer angle (the one formed by the obliquus inferior and superior) the branches of the suboccipital nerve are sought for. They are small, and, in my experience the most difficult of the three upper cervical nerves to find. There is more or less areolar tissue in the suboccipital triangle; this, and the bleeding from the rather numerous small veins here found, render it difficult to find the nerve. When it is found the nerve is to be traced down close to the spine and cut; the fact that the vertebral artery is also in this triangle should be remembered.

The operator returns to the occipitalis major nerve, follows it around the lower border of the obliquus inferior, and after tracing it beyond the point where the external or muscular branch is given off, divides the posterior primary division of the second cervical nerve. The lower portion of the complexus is then raised and the internal branch of the posterior division of the third cervical nerve is looked for. It will be found under the complexus, about three quarters of an inch below the second cervical. The internal branch of the posterior division of the third nerve is then followed toward the spine, to beyond the point where the external or muscular branch is given off and the whole posterior division is then cut close to the spine.

By these means, the nerve supply to the muscles concerned in the production of the deformity is cut off. The wound is then sutured. The divided muscles are not united by suture. No drainage is necessary if hemostasis has been thoroughly effected. Noble Smith made a vertical incision, from the occiput downward for three inches; one inch to the outer side of the spinous processes.

Experience has shown that such an operation even if bilateral, does not lead to interference with the movements of the head, nor does it cause an inability to hold the head erect.

Kocher's operation consists in a transverse division of the muscles involved. He insists upon the importance of subsequent treatment by manipulations and gymnastics. Section of the muscle does not produce paralysis, rigidity, or atrophy. Of twelve cases operated upon by Kocher, seven were completely cured, and at the time of the report five were still being treated.

De Quervain's theory is that section of the muscles acts as a suggestion to the cerebral cortical centers for rotation, that is to say, the spasms having been inhibited for a time by the operation, they do not return subsequently--the habit having been broken.

Richardson in a number of cases has combined muscle section with neurectomy, with good results.

My own operative experience is limited to two cases, which will next be related.

Miss K., aged 52; a saleswoman by occupation noticed an intermittent turning of the head to the left in August, 1895. She had for many years been deaf on the left side, and was in the habit of turning the head to the left in order to hear better, using therefore the right sterno-mastoid to excess. The movements became quite annoying. For the next few months I resorted to various drugs and to electricity, without benefit. In September, 1896, I excised a portion of the right spinal accessory. Of course, the muscle now no longer contracted and she was improved. However her head still turned to the left and was drawn backward, and it was then found that the left splenius and complexus were the seat of spasm.

For a year or more she went without treatment. She was then placed in the hands of a distinguished neurologist, who tried the rest-cure, drugs, cauterisation, and a collar. No benefit resulted, indeed the rest-cure weakened her. She became worse and worse. All that she could do was to sit in a chair, and brace her head against the back. She became an invalid, shunned society and could participate in no pleasures.

In the summer of 1900 it was found that the posterior cervical muscles upon both sides were the seat of the spasm. This spasm was for the most part tonic, with exacerbations at intervals, in which the spasms were clonic. The head was drawn almost directly backward, the so-called retro-colic spasm. She was in such a miserable state, that she was willing to undergo anything for the sake of relief.

I decided to excise the posterior division of the three upper cervical nerves and also to cut the muscles. At the operation, I was unable to find one of the sub-occipital nerves, but found all the other nerves. I also cut the trapezius, splenius capitis, complexus, trachelo-mastoid, and obliquus inferior on each side.

The wound healed by first intention. When she recovered from the operation there was no more spasm. The head was held slightly backward, and more or less tremor was present. She could move her head quite well in all directions, and expressed herself as much improved. At the present time, fifteen months after the operation, there exists some tremor. There is, of course, no retrocolic spasm. The patient is able to attend to her work in the house, to do needle-work, to go driving and to travel.

A second case was Miss L., aged 32 years, referred to me by Dr. H. S. Upson.

The patient was a spare neurotic woman. She had been very "nervous" as she expressed it for two years or more. Worry and grief seemed to be the only cause that could be found for the torticollis, which had existed for five months. She had been treated medically most of the time without improvement. There was, when I first saw her clonic contraction of the right sternomastoid, and of the left post-cervical muscles—the usual form, as I have mentioned above. The spasms were quite infrequent when she was lying down, but were severe when she sat up. Her right spinal accessory was excised, as were also the posterior primary divisions of the three upper cervical nerves on the left side. The muscles were cut. The result is that no more spasm exists, and her head does not turn at all.

In conclusion, I should like to submit the following:

1. The etiologic importance of frequently repeated muscular contractions in the production of the disease.
2. The uselessness of non-surgical measures—at any rate in advanced cases.
3. The safety of the operation, the absence of impairment of motion after them, and the good chance there is of obtaining a cure, or at least improvement.
4. I would urge the performance of radical and extensive operations—excision of the nerves and divisions of the muscles.

Causes of Death in Strangulated Hernia.¹

By WILLIAM B. JONES, M. D., Rochester, N. Y.

“HE HAD a hernia for many years, it came out and he died. It had been down a good many times before, but he had always got it back;” that is the way it is usually told, but it conveys no idea of how it killed him, and I think many physicians have no definite conception of how strangulated hernia does kill. Without intelligent comprehension of what may happen, neglect, procrastination or misdirected effort usually sacrifices a life.

Reflection upon the fatal conditions resulting from strangulation surprises one at their number. Nearly always there is shock, often severe and occasionally fatal. It is liable to be extreme in elderly people and may be aggravated by taxis, or by carrying the patient a distance, if the accident occurs where that is necessary. It increases too with the length of time before

¹. Read at the thirty-fourth annual meeting of the Medical Association of Central New York, held at Buffalo, N. Y., August 27 and 28, 1901.

relief is obtained. It increases the danger of operation and should be prevented. How to do so suggests itself, but to do it should be in mind from the beginning. Rare exceptions are found and every once in a while a case turns up, having had what was mistaken for acute indigestion, a bilious attack or obstinate constipation but without the usual amount of shock, and after three, four or seven days, a hernia is found that had been there all the time not only strangulated, but also gangrenous and ruptured, leaking feces. Shock is also greatly increased by taxis.

The strangulated loop becomes inflamed when the constriction only embarrasses the circulation, but when the blood supply is stopped gangrene occurs at once. In either case it rapidly becomes septic and infects the surrounding tissues. From there by extension, general peritonitis follows, which is septic and rapidly fatal. Nature's method to prevent that is to confine this inflammation by adhesions about the ring until suppuration works an opening through the skin, allowing the formation of an artificial anus.

There may be leakage from torn intestine directly into the abdomen. The tearing of the gangrenous portion may be on the proximal side of the ring where feces escape into the abdomen, or having bursted outside the ring, it may be withdrawn into that cavity by the traction of the muscular fibers of the mesentery and bowel. This traction is always noticed during operations, to draw back the bowel as soon as it is liberated by section of the constriction, sometimes moving it several inches, and that even after the exhaustion of being a few days in that condition. It is greatest when the accident has just occurred and is the cause of the agonising, sickening pain and shock. It has sometimes torn the rest of the bowel away from the hernia, and that is another way leakage of feces has occurred. It is another of nature's resources, because it spontaneously reduces some hernia and has been known to do so after taxis has failed, and it assists in all reductions that do not come to operation.

The hernia must be freed from constriction, either by passing it back through the canal and ring, or by cutting the latter, and it must also be viable when reduced. If it be reduced, whether by taxis or by operation, there are several unfortunate possibilities. No one operates at the present without opening the sac to ensure relief at the ring, but taxis does replace some of them, sac and all, unrelieved. After incision it is often difficult to

judge of the viability of the injured part and when taxis is successful we know nothing about it. An error of judgment in the first case or misfortune in the second, and subsequent sloughing finishes a short case history.

Functional obstipation causes death. In a very small hernia consisting of a part from a side of the bowel, there is not a real occlusion, but the effect is the same. There is no vermicular contraction opposite the portion that is pinched and no movement of feces past that point. The usual symptoms of intestinal obstruction lead to the usual termination of that condition. Also when hernia of the whole circumference of the bowel has caused paralysis, localised in that part without sloughing and that is returned into the abdomen, the paralysis remaining, the patient dies of inaction of the bowels. I know of no way to tell this condition in doubtful cases, the tissues are alive, but the distention does not disappear, and many deaths can only be explained in this way. It should be remembered that paralysis in a portion of the intestine means vaso-motor paralysis as well; the congestion means less ability to resist the erosion of fecal matter and the penetration of microorganisms, besides the epithelium is not readily renewed after such injury and the progress is, invasion of mucous membrane by bacteria, desquamation in patches, leaving ulcers through which germs and toxins readily enter, but are absorbed into the circulation and partly pass through the paretic congested bowel into the peritoneal cavity, causing an especially rapid fatal septicemia and peritonitis. Nor is this embarrassment of circulation and other function limited to the hernia. If we look for it we often find a number of inches of intestine a distance of some inches from the hernia paretic and distended and in this portion the mucous membrane would show a large area of deepest congestion with many sloughing ulcers. Fatal peritonitis results from infection entering these areas and passing right through the bowel wall into the peritoneum. Hemorrhage from the same place has taken off many who would have recovered but for that. The condition is due to traction and twisting of the mesentery, choking the blood vessels.

Mrs. B., aged 63, was well until six days before I saw her. At that time while coughing she suddenly had a severe pain in the left groin and found a small swelling, which soon became smaller, but had not disappeared. After about two days of severe colicky pain with vomiting, the former ceased and the only symptoms were vomiting and inability to move the bowels.

Loss of strength was very gradual and at my first visit her condition was surprisingly good. Operation within two hours showed one place where the small intestine had been constricted and still had a narrow ring of ecchymosis, but it had been withdrawn early and had preserved its physiological as well as anatomical integrity. The portion found unreduced was omentum and was viable. About six hours after operation, when in excellent general condition, she began to have profuse persistent evacuations of blood, from which she died twelve hours later.

At autopsy all peritoneal surfaces and contents were found normal but the entire mucous surface of the ascending and transverse colon were extremely congested and swollen with small sloughs and ulcers deeply placed. In and below this portion the bowel was full of blood. The imprisoned omentum had drawn upon the colon so that its vessels were occluded by the displacement and tension, and the affected portion of bowel was asphyxiated.

If the case requires operation there are dangers in addition to the foregoing. The intestine may be accidentally injured. The anatomy is so altered that it may be difficult to avoid doing so. In the presence of sloughing, suppuration or fecal extravasation, the peritoneum is necessarily soiled, in which case the patient usually recovers, if proper technique is used, but not always. There must be shock added to that already present. Hemorrhage, the anesthetic and post operative intestinal obstruction are less frequently critical.

When resection has been done, failure of intestinal anastomosis is comparatively common and is almost always fatal. When an artificial anus has been left death has not seldom followed within a few days or weeks from interference with nutrition and from exhaustion, due to constant care of the discharges and pain from the excoriation of the skin they cause, especially if the bowel opening is in the upper part of the intestinal tract. And after all that, there is to be an operation for its closure, which is more dangerous than any ordinary laparotomy. Of those who recover from strangulated hernia with an artificial anus, very few live to recover from that.

Of those who die from strangulated hernia, the greatest number succumb to sepsis at the time of illness; the next to inaction of the bowels, due to the return into the abdomen of a section of the intestine, not dead but paralysed, in which the mucous coat ulcerates, and through which infection enters the circulation and the peritoneal cavity; the next to the results of fecal fistula, which are exhaustion and secondary operations.

One vital point must never be disregarded. It applies to every case whether reduced by taxis or operation. It is, that reduction is by no means sufficient, and until assured of the return of bowel action, the anxiety is scarcely lessened. He who is satisfied when he has put the mass out of sight, is an ostrich with his head in the sand. Unless he has good reason to believe that bowel function will be restored, he should not rest well until it is.

The causes of death in strangulated hernia are principally as follows: Without operation, shock; with or without operation, general peritonitis by continuity from the infected sac and hernia; general peritonitis, from leakage of feces; general peritonitis from sloughing of intestine returned by taxis or after incision; paresis without sloughing, of portion returned, resulting in ileus, septic peritonitis, general septicemia and sometimes fatal hemorrhages into the bowel; asphyxia, in portions of the intestine at a distance from the hernia with necrotic ulcers, also resulting in systemic infection, ileus, septic peritonitis and fatal hemorrhage; with operation, accidental injury to intestine; accidental soiling of peritoneum from infection present before operation; added shock; hemorrhage; anesthesia; intestinal obstruction from post operative adhesions; failure of anastomosis; artificial anus; operation for closure of artificial anus.

The foregoing statements make plain: That taxis should never be attempted after the first few hours. If the hernial tissues have become weak and fragile, they are easily bursted, and if they have become paralysed their return to the abdomen will be a fatal success. That hernia should be remembered and every patient examined for it, if his symptoms allow a possibility of such a cause, and immediately after failure of gentle taxis, if within eighteen hours of strangulation and without taxis; if later in the attack, he should be operated upon. That fecal fistula, besides its distressful immediate consequence has also a large mortality and during operation measures that avoid it even by considerably increasing present risk, if not too severe, are safer for the patient; and that conservatism in its best sense requires a radical cure of all ordinary hernia as soon as discovered instead of treatment by trusses, some cases in young children excepted.

It seems ridiculous to urge upon twentieth century physicians to diagnose hernia, to avoid injuring the intestine by taxis and to secure relief early, but in my experience a majority of cases referred for operation have been detained for treatment until the

bowel was dead, and a large minority have existed unrecognised or neglected for nearly a week, many of them sloughing.

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DISCUSSION.

Dr. S. B. SEARS, Syracuse.—I have been very much interested in Dr. Jones's paper, and I think that it is a great error, in regard to attributing the cause of death in strangulated hernia. We are apt to say that if a man is brought upon the operating table, and he succumbs, that the cause of death is the operation, regardless of the conditions under which we operated. Many come to us when the bowel is gangrenous, and when they are completely exhausted. I saw recently a case, perhaps a year ago, where the patient had been brought into the hospital with a hernia that had existed for only a week. During that time she had no movement of the bowels. The operation was performed, and after forty-eight hours there was no untoward effect. She had a good pulse and temperature, after taking away some eight inches of the intestine, and yet that woman died at the end of the third day. I had an autopsy performed upon the woman and the abdomen was clean, the womb was fresh, there was no sign of infection at the womb, and I have a specimen of the intestine with me which shows an absolutely perfect operation. We had there a perfect union of the intestine and a perfectly normal recovery from the anesthetic apparently, and forty-eight hours after operation her pulse was less than a 100 and her temperature 99°, and yet she sank and died. I believe she would have died just the same whether the intestine was taken out or not.

I operated on a man a few days ago, in the afternoon, toward evening, and found the intestine absolutely black. I do not believe we are justified in attributing all deaths to operations simply because an operation has taken place. Another case was a lady, whom I operated on several years ago, who had a hernia, and who wore a truss. I saw her several days later and found the hernia was not reduced. It was a femoral hernia, and the truss was very tight. I operated and reduced the hernia, and four or five hours afterward the woman became black in the face, and died before I could get to her.

Here is a specimen which I wish to show you. It was some sixty odd hours after operation, and shows the line of union in this intestine, and there was absolutely no infection following it that you could find. I am heartily in sympathy with Dr. Jones's paper, and I believe if we would operate earlier and without so much manipulation we would have a far greater percentage of recoveries.

Dr. A. L. BEAMAN, Canandaigua.—The paper is an excellent one, and very comprehensive of the subject. The postponement of cases that cannot be reduced brings about a great amount of

danger, and when they are reduced the danger is still great because of the probability that it is reduced in such a way that strangulation will result. It seems to me that an operation for strangulated hernia should be much more common, and one of the reasons is that there is a sepsis beginning very early. Take an old man who dies from an operation for strangulated hernia; it ought not to be attributed to the operation when we know that there is septic peritonitis developed in the case. If in this case an open operation was done and a proper form of drain used, it seems as if some of those cases might be saved. In a general way the open operation is preferable—the abdominal operation—to the common one of following the inguinal canal. I do not see any more danger in an open operation, and dissecting the bowel, knowing what you are doing. There is no doubt that local application of ice and injection of morphin are only temporarily expedients, and should never be regarded in any other light.

Carbolic Acid: Its Use and Abuse.¹

By GEORGE W. SARGENT, M. D., Seneca Castle, N. Y.

HAVING seen something of the uses made of carbolic acid by Dr. Seneca D. Powell, and having had an accident in handling it, which would ordinarily have been somewhat serious, but under the circumstances proved to be only an interesting incident, I have attempted what I know is a very incomplete resumé of its possibilities for good and evil, especially as regards the pure acid, with some remarks on the toxicology, and the treatment in cases of poisoning. Phenol, phenyl hydrate, phenic or carbolic acid is one of our most interesting and useful remedies. There is none more capable of harm, or more commonly used accidentally, and with evil or suicidal intent. It is employed largely and carelessly by the laity, and held in somewhat superstitious regard by many, a few drops of the acid allaying all fears of infection. Every few days we hear of some accident or fatal result from it. It was formerly used as a remedy internally, and by injection. It is now employed for the purpose of a preservative in preparations of antitoxin. Considering the large doses of antitoxin now given an unsafe amount of the acid is liable to be injected with a very deleterious influence on the heart and kidneys.

1. Read at the quarterly meeting of the Ontario County Medical Society, at Geneva, October 8, 1901.

Dr. Geo. F. Cott, of Buffalo, has shown that the bad results attributed to antitoxin, as nephritis and heart failure, are probably due to the carbolic acid.

In the *Medical Record* of March 11, 1899, Dr. Seneca D. Powell, of New York, asserts that alcohol is a perfect antidote to carbolic acid; moreover, that in connection with alcohol the acid is capable of greater service than generally supposed. Powell has demonstrated that the pure, or 95 per cent. acid, may be rubbed on the skin or held in the mouth with impunity until the skin or mucous membrane turns white if the parts are then rinsed with 95 per cent. alcohol. I am able to testify to the truth of this from experience, having unintentionally performed the experiment, already alluded to, on my own hands. I had on a table before me two two-ounce bottles labeled and filled respectively with carbolic acid and alcohol. Wishing to rinse my hands in the alcohol, I picked up one of the bottles, poured a liberal quantity into one palm and rubbed it over both hands as in the act of washing. I was not a little surprised to find by the greasy sensation and silvery color to which my hands were turning that I had used the carbolic acid. However, a thorough rinsing in alcohol from the other bottle, to my satisfaction, promptly restored the normal color and feeling, with the exception of a slight sensation of dryness and roughness for the rest of the day.

Since Powell's paper, this antagonism between carbolic acid and alcohol has been made considerable use of in minor surgery and in treating carbolic acid poisoning. In many instances the pathogenic germ which the physician or surgeon has to deal with is beyond control with the agents at hand in the strengths ordinarily or safely used, but carbolic acid may be employed with alcohol in full strength; and by its means a suppurative or an ulcerative process can be checked and one of healthy granulation produced quickly with rapid healing. According to the *Therapeutic Gazette* the pure acid is relatively less toxic to the normal tissues than the diluted acid, its penetrability is slight during a brief application, and its bactericidal action surpasses that of corrosive sublimate, from the fact that the action of carbolic acid is not materially affected by the presence of acids, alkalies, salts or albumin, yet in some cases may thereby be considerably increased. [Anthrax spores are destroyed by a 2 per cent. solution of carbolic acid alone in 30 days, but by a 2 per cent. carbolic with 1 per cent. hydrochloric acid, in 7 days. Staphylo-

coccus pyogenes aureus by 1 per cent. alone in 5 minutes, but by 1 per cent. carbolic with 20 per cent. common salt in 1 minute.]

One of the most speedy and satisfactory methods of treating an indolent ulcer of the leg is carried out in the following manner: (1) curette and remove all unhealthy and false tissue; (2) apply 95 per cent. carbolic acid for a moment till the surface turns white; (3) apply 95 per cent. alcohol until the normal color of a clean granulating surface appears; (4) protect the ulcer with a covering of short, narrow strips of simple adhesive plaster, applied criss-cross so as to leave little gaps for drainage; (5) over this lay plain sterile gauze; (6) apply one or more roller bandages. This dressing applied as often as necessary will result, I have found, in a rapid cure.

Carbolic acid is serviceable in mammary tubercular and other abscesses. Here the cavity is first evacuated, then cleansed by irrigation, swabbing or curetting, and swabbed out with pure carbolic acid, then with alcohol, and finally again irrigated. In this way a normal granulating surface may be secured in a surprisingly short time. A. M. Phelps, of New York, uses the pure acid in this way in tuberculous joints. Empyema, cystitis, hydrocele, and the like, are amenable to carbolic acid, using a solution of $\frac{1}{2}$ drachm to 1 drachm to the ounce of water followed with 25 or 35 per cent. alcohol.

In the case of hydrocele a quantity of the pure acid is injected and allowed to remain without further interference. Erysipelas is successfully treated by painting the affected surface with 95 per cent. acid, and when the skin turns white, with alcohol. One of our members has told me of treating a case thus, but found it very painful, though effective. Others who have reported cases make no mention of pain. A brief application of the acid to the normal skin or to an ulcer or other raw surface is not painful. Ivy poisoning is rapidly cured by a 2 per cent. lotion, and the lymphangitis that is apt to occur in connection with infected wounds is usually readily controlled by it; also the redness, pain, induration, and other signs of inflammation in caked breast or mastitis. In cellulitis of the hand or foot, Powell injects the pure acid and then alcohol, cocain being first used to avert the pain of the needle. The pure acid is used in mastoid abscesses, in septic conditions of the endometrium, ischio-rectal abscesses, furuncles, and other conditions. Some persons dread an operation and will submit to any treatment, though much slower, rather than undergo cutting. With a specially constructed syringe

that will follow the sinuous tracks of fistula-in-ano it is possible to accomplish a cure without a knife.

The danger of poisoning should always be borne in mind. The long continued application of phenol might be accompanied with absorption and poisoning through the skin. I may mention the case of an infant seven days old dying from a few drops on the fingers of the nurse. The proper use of the acid does not contemplate usually protracted or continuous applications. Ignorant persons sometimes wrap the fingers or toes in the acid in full strength, or in very strong mixtures, with subsequent gangrene. There seems to be an opinion that gangrene is apt to occur when the acid is used on the extremities even in weak solution, but I think this must be a very rare result. An instance reported where two brothers, both young men, never ill previously, had gangrene of the fingers following the use of a solution containing only 1.7 per cent. carbolic acid was regarded as due to idiosyncrasy. There is no danger so far as I know from the pure acid followed with alcohol.

The treatment of poisoning cases has been very unsatisfactory. Woodman and Tidy cite twenty-one instances during a period of five years with only one recovery. The doses taken were usually one to two ounces. The smallest fatal dose I have found recorded is $\frac{1}{2}$ oz. The effect of a poisonous dose is sometimes extremely rapid, but generally several hours elapse before death. The antidotes printed on the manufacturers' labels and in the books have not proven efficient. The alkalies in excess have some power, oils retard the absorption of the acid and heart stimulants, as atropine, strychnine and caffeine are useful.

In one instance $2\frac{1}{2}$ grs. of caffeine dissolved in water with the aid of sodium salicylate given hypodermatically and repeated in an hour restored a man from a state of coma. Vinegar is claimed to be efficacious. Bleeding, one pound of blood being drawn, was once successful. Emetics are of no service because the stomach is benumbed or paralysed by the acid. During the past two years, since the antagonism between phenol and alcohol has been made prominent, several cases of recovery where the patients were apparently moribund have been reported after the exhibition of alcohol. In one case the stomach was washed out with pure alcohol. A 25 per cent. solution will counteract the acid on the skin and it is probable that whiskey or any strong alcoholic would answer for internal use. How this antidotal property of alcohol is exerted is not certainly known. There may

be a true antagonism between the two substances, or the alcohol may act simply as a solvent, though its action seems to go farther than that. However this may be, we have the fact that alcohol will prevent and remove the caustic and poisonous effects of the acid. The primary step in poisoning cases is to wash the stomach out with alcohol, then whiskey may be given hypodermatically, with the idea of neutralising the acid in the blood. Other heart stimulants may be required. As the acid is quite rapidly taken up into the blood it has been suggested that no method of treatment is complete without bleeding. But this has not been done to any great extent, or been necessary, to my knowledge. I find four cases reported during the last eighteen months, three in the *Medical Record* and one in the *Therapeutic Gazette* of September 15, 1901. There have been others, but I am unable to refer to them at this time. In three of these, alcohol was given the undoubted credit for the recovery. In two it was the only agent used until the acuteness of the attack was over. In one, sulphate of magnesia was employed, but not considered as having had much influence on the case. In the fourth the act of drawing forward the tongue seemed to be beneficial by admitting air more freely to the lungs.

In conclusion, it seems safe to say that alcohol is the most perfect, the most certain, and the most handy antidote to carbolic acid which we possess.

Consideration of Some of the Functional Signs of Diseases of the Stomach.¹

By J. H. POTTER, M. D., Buffalo, N. Y.

IT IS not my intention to present anything new in considering the functional signs of diseases of the stomach, but to review our present knowledge of these signs. A consideration of the clinical history and physical signs are often attended with doubt as to the actual conditions present, but a consideration of the functional signs gives a more positive and direct knowledge of the work the stomach is capable of performing. A diagnosis made without a consideration of the functional signs is incomplete and lacks scientific accuracy.

1. Read before the Roswell Park Medical Club, at the club rooms in the Mooney-Brisbane Building, October 7, 1901.

The stomach acts as a reservoir, the action of which is to a certain extent self-regulating. It also has three functions to perform when food is introduced, secretion, churning and evacuating movement, and absorption. While it may be possible for an individual to live without a stomach, a variation from the normal condition in either of the above functions leads to more or less local and constitutional disturbance. It is well to consider the subject under four divisions. Secretion, motor function, absorption, and digestive work. The stomach, as you well know, secretes mucus, an acid, and two ferments. I will not take up your time by going into the anatomy of the stomach or considering the different cells engaged in secreting the different substances; it may be well, however, to know that the fundus secretes more acid and the pyloric portion more pepsin. The method of studying secretion at the present time is by giving what are called test-meals. These may be given and withdrawn at definite intervals, and by chemical examination, determining the various digestive substances present.

Various methods have been used at different times to obtain the stomach contents. Among these might be mentioned vomiting, the use of a silver cup which is attached to a thread, swallowed and allowed to remain for a short time and then withdrawn, also swallowing small pieces of sponge which are then withdrawn. None of these methods are as free from error as the stomach-tube, and the latter is about the only one generally employed.

The tube should be used in every case where a positive diagnosis cannot be made without it, and when no contraindications exist. Some of the objectionable indications to the use of the tube, it may be well to consider in this connection. Among these are acute diseases of the throat and stomach, general peritonitis, perigastritis, advanced soft carcinoma and ulcer, also similar condition of the esophagus and existence of aneurism of the aorta. It is best to defer the operation in all cases of recent hemorrhage, old age, severe valvular disease or degeneration of the heart muscle, advanced renal disease, cyanosis; and when obstructed respiration is present, it is advisable to avoid the use of the tube. It also should rarely be introduced during pregnancy, and, lastly, the refusal of the patient to admit the use of the tube.

The best method of obtaining the stomach contents I have found to be the use of Turk's stomach evacuating aspirator. By

this method only sufficient should be withdrawn for analysis. If this is not at hand, then the ordinary stomach-tube can be used, and by instructing the patient to strain and make an effort to vomit, one may be able to obtain some of the stomach contents. If it is desired to empty the stomach, the patient may be placed in the knee-chest position. If no contents are obtained by these methods, then a small quantity of water may be introduced, withdrawn and examined.

There are various forms of test-meals, but we shall consider those only which are most frequently used. Examination should be made in the condition which prevails when the stomach is doing its normal work. The simplest test-meal is that of Ewald and Boas. The patient is given in the morning on an empty stomach one roll and 350 c.c. of water. The bread should be taken in the mouth dry, thoroughly masticated and washed down with water. One hour after the beginning of the breakfast the contents should be removed. In normal condition, at the end of an hour we obtain from 30 to 50 c.c. of a yellowish homogeneous mixture, which is filtered with ease. The total acidity should be about 55, acid albumin acidity, 45, and the free HCl acidity about 10. Free HCl appears in thirty minutes, reaches its height in about an hour and then diminished to the end of gastric digestion. The stomach is empty in from two to two-and-one-half hours from the beginning of the breakfast.

A more elaborate test-meal is that of Germain Seé. This test-meal consists of 60 to 80 gm. of chopped beef free from fat and fibrous tissues, 100 to 150 gm. white bread and a glass of water. The contents are removed two hours after the beginning of the meal, which should not be eaten rapidly. The test-dinner of Riegel consists of plate of beef soup, 150 to 200 gm. beef steak and 50 gm. potatoes and a small roll. Food should be thoroughly masticated, and tough fibrous bits of meat removed and contents obtained three or four hours from the beginning of the meal.

The test-breakfast, test-dinner and test-meal reveal accurately and fully the digestive work of the stomach. The test-meal of Ewald and Boas does not always fully test the digestive power of the stomach, and it is frequently advisable to use one of the other test-meals. It is sometimes a good plan to use two of the different meals in the same case.

In consideration of the HCl it is at present the universally accepted theory that the hydrochloric acid is formed and given

out in a free state by the border cells. The acid unites with the mucus, exfoliated cells, saliva found in the stomach, and inorganic carbonates of the food and saliva, and this part for the digestion of the food is lost. Another part unites with the proteids of the food and converts them into acid compounds, which with the aid of pepsin are built up into albumoses and peptones. After the affinities of the proteids are satisfied, then the excess of HCl remains free. This excess is limited by the normal stomach and when this limit is exceeded, or, not reached within the proper time for the particular test-meal, the acid secretion is abnormal. If we know the amount of free acid that should be present at a given time after a test-meal in a normal stomach, it will then be easy to determine whether we have a case of a diminishing amount of acid secretion.

Some of the methods for determining the amount of acid present are elaborate and fit only for laboratory use; but for the general practitioner it is necessary to have a method which is simple, short and fairly accurate. In this connection it would be well to consider the substances usually tested for, and the manner of determining whether they are present or not. Given a test-meal, the first thing to consider is its reaction. This is determined by the use of litmus paper. If acid in reaction, the kind of acid present has to be determined. If neutral or alkaline, then the test for free acid is not necessary.

Lactic acid will probably give the same reaction and if you wish perfect accuracy take 5 to 10 c.c. of filtrate with a double quantity of ether and shake in a test-tube, allowing it to stand for a few minutes until ether has separated; pour off ethereal solution and put in hot H_2O till ether has evaporated and test the remaining sediment.

The first test is for HCl. If HCl is not present, then either of the following acids, lactic, fatty or butyric. The simplest and easiest test for HCl is, first, to a few drops of stomach contents add one drop of phloro-glucin-vanillum; stir with glass rod, evaporate to dryness. If HCl be present a bright cherry color appears. To determine whether the lactic acid is present, to a 2 per cent. solution of carbolic acid add one drop of tincture chloride of iron. Add filtrate to this blue solution. If yellow color appears then lactic acid is present; if gray, fatty acid, while organic acids decolorise the carbolic solution. To determine the total acidity present add one drop pheol-ptyalin to 10 c.c. of filtrate, add drop by drop of this solution and read

biuret for amount used. If biuret reads six, the total acidity equals sixty. To determine the amount of HCl. present multiply biuret reading by ten and that by .00365.

To determine the work of the ferments it is well to examine for pro-peptones and peptones. Ferment is determined by the following method. To the filtrate add equal amount of sat. solution NaCl. The degree of opalescence shows proportion of quantity of pro-peptone. If no precipitate is present add a drop or two of acetic acid; will get a turbid sediment if pro-peptone is present. To determine the peptones, filter the above solution, make slightly alkaline and add few drops of a 1 per cent. solution of sulphate of copper. If resulting purple, it shows peptones.

It may also be well to consider the two ferments. By some clinicians this method is not utilised, but it is of aid in determining the pathological condition present. Of the two, labferment and labzymogen are the first ones to consider. As you know, labzymogen is a specific which is secreted by the cells and by the action of hydrochloric acid present, labferment is formed. The labferment coagulates milk by the disintegration, of the casein. The coagulation differs widely from that of acids and takes place in the presence, but independently, of any free acid in the stomach. This takes place when the medium is neutral or weakly acid.

A simple test for labferment is to place three or four drops of the unfiltered and unneutralised gastric contents in a covered glass and to this is added 5 c.c. of sweet milk. If this is kept at a body heat in from ten to fifteen minutes coagulation takes place. The qualitative test for the labzymogen requires a special preparation of the gastric contents. Five c.c. of the contents are made slightly alkaline with 1 per cent. solution of sodium carbonate, to this is added about 2 c.c. of cynid calcium chlorid, and mixed with a quantity of sweet milk and kept in a body temperature; the alkalinisation has destroyed the ferment and the calcium chlorid will convert the labzymogen, if present, into labferment and the coagulation will take place in the usual time.

Now there may be three conditions present, first, labzymogen may be normal, variable or persistently diminishing. If this is nearly always present after the test-meal, while not absolute proof that no pathological condition is present, it is very much in favor of its absence. If the acid secretion and motor function are normal, then we can almost be positive that no pathological condition is present. If there is continuous excessive secretion

of HCl., then the labferment is frequently present in greater quantity than the labzymogen. The rule which claims that normal milk curdling power of the gastric contents excludes all but the dynamic affections does not hold true in some cases of glandular gastritis, ulcer and complicated myasthenia.

A variable labsecretion is a common sign of incipient and mixed forms of gastritis or of myasthenia and obstructive stagnation or retention. The quantity varies because the interstitial inflammation varies and because the evacuation of the stomach contents is irregular. If the labsecretion is persistently diminished, then there is glandular disease and the degree of deficiency indicates the degree and diffusion of the gastritis, or it indicates glandular degeneration.

The second ferment is pepsin and pepsinogen. The pepsinogen is a substance which is secreted by the cells and pepsin is formed by the action of the free HCl. The quantity of pepsinogen is conditioned by the percentage of free hydrochloric acid, about 2.5 parts, a 1,000 being the most favorable strength. The organic acids also possess this power of conversion.

The simplest form or method of testing this condition is that of Leube. Two tests are made, the one with the gastric contents alone and the other with the addition of pepsin. If the latter dissolves an equal part of albumin more rapidly than the former, the pepsin is deficient. Boas compares the rapidity of the solution of albumin by the gastric contents to be tested with the rapidity of the solution by the same quantity of albumin by the normal contents. Pepsin may be formed in excessive, normal or subnormal quantities. A continuous normal pepsinogen is a good sign of the integrity of the glandular layer; but a mild anatomical disease of the stomach may be present without causing a noteworthy change in the amount of pepsin. An excess of pepsin may be secreted and is often met with in chronic hypersthenic gastritis. The early morning contents of continuous secretion often digest more rapidly than the contents obtained after a test-meal given to the same individual. Whenever the filtrate of the early morning contents possesses greater digestive power than the filtrate of the test-breakfast contents, there is motor insufficiency. In simple continuous secretion, the early morning contents possess no greater digestive power than the contents after the test-breakfast.

In still another condition the pepsin tests are valuable, as when there is persistent and progressive diminution of the specific

elements of secretion. This is a physical sign of chronic asthenic gastritis, of atrophy of the gastric glands or of carcinoma. It may be well to know, however, that the diminution of pepsin is not characteristic of any particular disease of the stomach and its quantity varies in very close relation with the quantity of total HCl. Consequently, its increase or decrease or its presence in normal quantity in the contents after the test-breakfast possesses about the same significance as like states of HCl secretion. It is also well to know that the loss of labferment secretion is of more grave significance than that of hydrochloric acid and pepsin secretion.

It is well next to consider the motor function of the stomach. The gastric muscle plays an exceedingly important part in the pathology of the stomach. Motor insufficiency is always indicative of more or less serious conditions. The chemical work of the stomach may be null without affecting nutrition if the integrity of the motor functions are maintained and the contents of the stomach are given over to the healthy intestines for assimilation and digestion. The intestinal juices are much more powerful and active than the gastric secretion.

Of the movements of the stomach there are two, that of churning and that of evacuation. These processes are undoubtedly due to the excitation of the ganglia contained in the stomach walls. During the first period of digestion, the duration of which is dependent upon the physiological action of the food, the tonic contraction predominates and the gastric wall applies itself closely to the gastric contents. These processes are necessary for the mixing of the various contents.

The second period is that of the worm-like movements, which are cardiac, pyloric or total, according to the location and extent of their visible expression. The normal motor function is dependent on a proper nerve supply, on a healthy muscle and on a physiological excitation. Consequently, motor function may be deranged through the central and sympathetic nerves by a badly nourished, weak or diseased gastric muscle and by improper contents in the stomach. It may also be hindered by adhesions, deformities displacements and obstructions to the evacuation of the stomach. Various methods have been devised for testing the motor function. One of these is by obtaining the contents of a given meal and determining the amount of the contents present at different periods during digestion, and comparing this with the amount normally present.

Another method is the use of salol. Salol is insoluble in the normal gastric juice and is decomposed in the intestine into carbolic and salicylic acids. The latter undergoes absorption and is eliminated as salicyluric acid in the urine. Normally, this may be detected in the urine in about sixty minutes, sometimes in thirty. The longer lapse of time before detection in the urine, the greater is motor insufficiency.

Another method is by the splashing sounds. Splashing throughout the period of digestion from day to day is a sign that the stomach muscles do not properly contract on its contents and perform its churning work. Another method is to direct the patient to eat a plate of soup, one roll and a beefsteak. Seven hours later the stomach should be normally empty. If the stomach is washed out at this time and any notable residue of the meal obtained, the stomach has failed to evacuate itself within the proper period. This failure may be due to insufficient secretion. The motor signs display a normal muscular activity and work or reveal some pathological variation. The pathological variations are excessive activity and insufficiency. Excessive activity is manifested by spasm-cardiospasm, gastrospasm, spasms of the pylorus, peristaltic unrest. Insufficiency is due either to a diminution of muscular power or to inability to overcome some mechanical interference.

In regard to the evacuation of the stomach, it may be too rapid or too slow. Too rapid occurs in pyloric organic diseases, particularly cancer which has possibly diverted the pylorus into a rigid, open canal. Delayed evacuation is most commonly the result of myasthenia. The other causes of delayed evacuation, when it is not a mere temporary condition or due to excessive secretion are the anatomical diseases already mentioned. The motor signs are all symptoms; not one of them is a disease.

One other change, absorption takes place through the stomach, but as not very much is known about it in the present state of our knowledge, it would not be profitable to discuss the subject, excepting to say that alcohol, the sugars and albumoses are absorbed in small quantities.

The chemical transformation of the food by the gastric juices and the saliva represent the amount of digestion by the stomach. The carbohydrates are not digested normally by the stomach but in some diseased conditions the saliva may act somewhat on them. The digestion of proteids can be determined by the tests given above.

Nonsurgical Treatment of the Commonest Form of Deafness.¹

By GEORGE F. COTT, M. D., Buffalo, N. Y.,

Clinical Professor of otology, University of Buffalo.

IN TAKING up this subject I am mindful of the difficulties to be overcome. To treat catarrhal deafness successfully, it first becomes necessary to make a correct diagnosis. We all have had some experience in treating deafness. I may sum it up in one word: politzerisation. I make no distinction in the kind of deafness; all are treated in nearly the same way. In this paper I wish to point out the fallacy of the present method. Politzerisation is a great remedy when properly applied in the right case. Before instituting treatment, however, let us examine our patient and ascertain with what kind of deafness he or she is afflicted.

Case I. —We have here a little patient, aged 4, whose mother states that she cannot hear unless addressed in a loud voice. Deafness has been noticed for a year past. The child takes cold easily and often, during damp weather, coughs at night, without awaking. Often restless during sleep. We examine the ears externally and find them normal, then the canal and the drum-head, commonly referred to as the ear drum and find those also quite normal. Child may be fat or lymphatic, or thin and poorly nourished, or its general appearance good. We examine the nose and find often thick secretions which the child does not seem able to dislodge. Next, the throat is inspected and moderately hypertrophied tonsils are found. Then upon examining the post-nasal space, we notice a mass of tissue which looks like the tonsil lower down, and we at once make our diagnosis of deafness, partially due to the irritation caused by the excessive amount of lymph tissue behind the nasal cavity, and partially by closure of the eustachian tube by the same. In this case removal of the upper tonsil generally improves hearing, but occasionally other treatment must be instituted according to the needs of the individual case, such as tonics, daily cod liver oil baths, fresh air, sunlight, proper food, and the like. During this time politzerisation will aid the improvement very much and since the eustachian tubes in children are more or less patulous, the politzer bag may be used with advantage by simply pressing the balloon without the child swallowing and the air readily enters the middle-ear. In a very short time the child hears as good as ever.

Case II. —A boy, aged 12, well developed, apparently perfectly healthy, but cannot hear except when spoken to very loudly. He never hears ordinary conversation. Has been

1. Read before the Section on Ophthalmology, Otology, Laryngology and Rhinology, Buffalo Academy of Medicine, October 14, 1901, and Park Medical Club.

treated a number of months by a certain doctor and again by another. What was the treatment? The answer is, air blown into the nose while the boy was swallowing water. No result. Anything else? No. Ears appear quite normal. Cause must be somewhere else. Nose shows not sufficient cause, throat not very bad, post-nasal space, large pharyngeal tonsil not, however, covering the openings of the eustachian tube, but yet may be causing congestion of the mucous membrane lining the tubes and the middle-ear. Adenoids removed, boy hears but little better. Next day throat washed out with a mild non-irritating alkaline wash and then the tubes are inflated, gently, of course; perhaps 15 or 20 lbs. pressure; this is repeated every other day and in a few days to several weeks hearing is perfectly restored.

Case III.—Young man, aged 25, deaf for eight years, does not remember cause. Treated by several doctors, including advertising specialists, and using patent ear drums. All doctors treated him alike: politzerisation. No improvement whatever. Why not? Patient is rather young for sclerosis, no history of zymotic disease, never any discharge from the ear. Rinnes's test negative; Weber's positive. Drumhead somewhat thick and opaque, cone of light absent. Nose shows inferior hypertrophies, nothing more; catches nasal cold very easily. Loud voice heard four feet, whisper not at all; accumulator, two inches; watch only upon contact. Diagnosis: catarrhal deafness due to hypertrophy. Politzerisation negative. Evidently some other measures must be adopted. Nasal hypertrophies are first reduced and the susceptible mucous membrane brought under subjection. Catheter then used; 25 or 30 lbs. pressure brought to bear and patient at once hears the watch 4 inches, and loud voice 8 feet. Prognosis: good.

Case IV.—Man, aged 55, carpenter, deaf for number of years; no known cause. Heart sounds weak, for which strychnine was given; occasional tinnitus; drumhead thickened and some retraction of malleus. Politzerization negative. Nose and throat normal. Catheter gave but slight result, yet enough to warrant treatment. Prognosis: only fair. Diagnosis: old hypertrophy merging probably into sclerosis, which age and length of trouble would indicate. Bougie passed through catheter twice a week, allowing it to remain ten minutes. After several weeks, 30 lbs. pressure through catheter improves hearing perceptibly. After several months politzer air bag opens tubes fairly well and patient hears clock tick in his bed-room, which he said he was never able to hear before.

Case V.—Woman, aged 48, well nourished, yet complaining of all sorts of trouble which her physician properly diagnosed as incident to the menopause, through which period she was just passing. Bowels constipated, headache, backache, noises constantly in her head, causing loss of sleep, conjunctivæ not sensi-

tive, and different areas of skin anesthetic. Deafness progressive for a number of years. Drumhead retracted, malleus drawn in a horizontal position, lower border sharply outlined. Could hear very well when riding in street car. Tubes easily inflated and eustachian cushion pale. No improvement after inflation. Rennes's test positive; Weber's indifferent. Diagnosis: sclerosis. Prognosis: bad, but amelioration of symptoms possible. Ears not treated at all. Was given ovarian extract, 10 grains, three times a day; bowels regulated and daily spinal douche with cold water ordered, preferably in the morning when the patient slept fairly well, or at night when the opposite is the case. Report in two weeks. Patient much better in general health; noise in ears sometimes entirely gone and when it returns is much milder. Hearing improved because tinnitus is lessened. Subjective sounds relieved greatly by tr. cimicifuga, 10 drops, three times a day.

Case VI.—Female, aged 25, fairly well nourished, but markedly hysterical. Deafness ten years; no apparent cause. Examination indicated hypertrophy of mucous membrane of middle-ear and tubes. Tubes difficult to open with catheter. "Catches cold all the time," as she puts it, and often sore throat, worries a great deal over domestic troubles. Prognosis: fair considering length of time of trouble. Nasal mucous membrane treated first, and several weeks later tubes were inflated through catheter, with considerable difficulty. After several weeks more this became perceptibly easier, but improvement in hearing lasted but a short time, when it became as bad as ever. Turned her over to family physician and ordered all treatment to ears stopped until hysterical condition had improved. A year later patient called again. Hysteria all gone and she was joyful and happy. Although no treatment was given for deafness, hearing had so much improved that she could converse with but slightly louder voice than ordinary conversation.

CASES COMMONLY NEGLECTED.

Such are the average cases which come under our observation from time to time. Although those quoted above are hypothetical, yet they are typical of the average. Any number of partially deaf people are walking our streets daily who had undergone treatment for months or years, principally by the advertising specialists and whose pictures you may see in the daily papers as typical examples of persons cured by three months' treatment, the first thirty days free of charge.

Catarrhal deafness of the kind referred to in this paper and which is so often improved by proper treatment, is just the kind of condition very much neglected. Physicians in general expect too much in too short a time. Let us make a differential diag-

nosis of the average case and follow certain rules in conducting the treatment while giving a guarded prognosis.

ASCERTAIN CAUSE OF DEAFNESS.

First, what is the cause of deafness, chronic catarrh of the hypertrophic or sclerotic variety? Is it due to zymotic disease or, if profound, is it due to stapedial ankylosis? Chronic discharge, or has the discharge stopped? Is the drumhead perforated, large or small, and if so may it be benefited by an artificial drumhead? Is it due to malaria or rheumatism? Is it feigned? Did it come on suddenly or was it first noticed when waking? Is there constant noise in the ears or only at times? Does the patient hear better in a noise or does the hearing then become worse? Is the deafness due to labyrinthine disease, or perhaps of central origin? Perhaps the patient can hear but not be able to repeat the words—amnesic aphasia. Did it follow a box on the ear? Is deafness double or affecting one ear only? Is patient worse in damp weather? Are other members of the family deaf? Is patient a deaf mute? Is he old, young, or middle aged? All these questions are of more or less importance.

DIFFERENTIAL DIAGNOSIS.

In differentiating between common catarrhal and adhesive or the sclerotic variety, certain symptoms must be taken into consideration. Adhesive catarrh occurs in later life, 86 per cent., while the other is an affection of the young; 20 per cent. of all ear diseases are of this class. Nor is it so slow in its progress. While the one may be years in developing serious deafness, the other can usually be referred to the time of its onset. The one grows progressively worse with or without treatment, while the other is generally markedly benefited and often within a very short time. Paracusis is prominent in the sclerotic and usually permanent, while it is comparatively rare in the hypertrophic catarrhal. Subjective noises are greatly diminished in the one and seldom influenced by ordinary treatment in the other. In a certain percentage of cases differential diagnosis is not so clearly made and may require treatment for some time before giving a final prognosis. In fact, many things must be considered before a conclusion is reached.

PROGNOSIS.

After having decided that our patient has the commonest kind of deafness, known as hypertrophic catarrhal, our prognosis is,

with proper treatment, fairly good; that is, the patient may be improved materially. Now we assume that we have put the nose and throat and post nasal space in normal condition, the habit of catching cold has been stopped, the condition known as aprosexia, that is, a proper want of concentration of mind upon any subject for any length of time, relieved; hawking, hemming, spitting and dropping down the throat checked; we then ascertain the degree of deafness and its immediate improvement after treatment. The politzer bag, we assume, does not remedy matters much. The catheter is used and found to open the tubes quite readily, which we can tell by using the auscultative tube. The watch is then heard several inches, whereas before treatment it could only be heard on contact.

This treatment alone may have to be kept up for several weeks or months, then the air bag may be substituted. In the meantime patient must be tested by general conversation, using only familiar terms, and it will be noticed that patient's eyes are watching the speaker's lips. At first it is well to have the ear turned toward the speaker, and when the habit has been overcome, the patient should be instructed to look into the eyes of the physician and never on the lips. Now you may test the hearing power from time to time, but be careful to use only familiar words or you will be led astray, as an unfamiliar sound will never be understood at this stage. The patient will hear the words but cannot repeat them. Why? Remember the patient has been deaf a number of years and forgotten a great many sounds familiar to you. It becomes necessary to teach the auditory nerve anew what these lost sounds are, and that takes a long time.

A patient will come for treatment occasionally, after several months of labor on your part, and exclaim that she is as bad as ever, that she was in company with some ladies and gentlemen last night and couldn't hear a word. Who was her company? Some strangers from out of town. That accounts for it. Sounds by strange people are unfamiliar to the auditory nerve. Yet my voice is very quickly appreciated, talking no louder than before. This is important to remember or both will be discouraged. It takes usually many months to make perceptible improvement, and yet in the majority of cases improvement follows even general constitutional treatment and the tubes gradually open. The younger the patient the better the result in the shorter time. After middle age, prognosis must be more guarded and very much so when heredity plays a part in deafness. In a certain

number of cases the patient may be given a rest for several months and treatment begun again, at which time it will be noticed that marked improvement has taken place.

METHOD OF TREATMENT.

It also happens that patients will claim no improvement whatever after the rest. By consulting your record blank and comparing the present condition with the last year, you may find 100 per cent. improvement not apparently perceptible to the patient until told of it. Treatment with variations may have to be carried on from several months to several years. Perhaps by catheter, then air bag, then rest, then air bag again, teaching familiar sounds which were lost by lip reading, and the like.

This latter method ought to be considered of great importance. Patients who have been deaf for a short time, or who were along in years or approaching middle age, will not need so thorough a course of instruction as younger ones. The average patient is a good way this side of forty and therefore a general rule may cover the average case. After patient has been brought to the condition when we begin to treat the ears, confidence is quite thoroughly established. Lip-reading is strictly interdicted, because patient has formed the habit to substitute the one for the other and never hears more than some kind of sound, regardless of what you say, or the pitch you employ, and consequently hears nothing, but endeavors to read the motions of the lips.

I find, after a short time, the patient will ask no more repetition of sentences. After several months of this precaution, the physician will be informed his voice is heard quite distinctly, but other people cannot be heard any better than before. Here is another problem to be solved; but so far I have proved that hearing has materially improved when compared with the condition of the first visit. My voice is distinctly heard because its sound has become familiar. The same tactics must be employed with other people who converse with patient. It is far better to have a sentence repeated several times than resort again to lip reading, only the patient expects too much after some improvement has taken place and is often ungrateful for not receiving more than nature will allow. It is well at first to have the ear turned towards the speaker so as again to familiarise the auditory nerve and brain center with the sound long forgotten, and this sound passing into the ear directly is better appreciated than when the sound waves make an acute angle. In a little while,

however, the patient may be instructed to face the sound, for "out of the eye speaketh the soul," and common sentences in daily use will be distinctly understood. In this way persons who could never hear a sermon can sit ten or twenty feet away from the preacher and catch most of the discourse. This method may occupy the better part of years, but will succeed if proper care be taken and neither physician nor patient tire of the treatment.

PATIENCE, PATIENCE.

It was a habit formerly to give up in despair if a patient did not improve within a few weeks, or after that time the patient would remain away voluntarily. This ought to be discouraged. If no hope is held out, it is quite natural to lose faith and try quacking, which at all events promises something, and sometimes a great deal, but it is never accomplished. We have it in our power, even though we promise very little, to accomplish a great deal. You may talk French, German or Latin, it's all the same to the catarrhal deaf, but if you repeat a sentence from any language often enough, patient will distinctly hear and differentiate between pitch and variations of sound. What seemed all Greek, will finally be woven into beautiful sounds and often provoke a smile of recognition. These people must learn their language a second time. The auditory nerve lies dormant, and the brain center unimpressible and therefore must be again taught as in a child. This was forcibly brought to my mind by Professor Urbantschitsch at the Vienna Poliklinik, who made the discovery that deaf mutes could hear many sounds but had never been taught their significance. He has written several papers on the subject since. He would let the patient know what the object in his hand was, and then repeat the name in a loud voice several inches from the ear, and often after several lessons it would be pointed out after having heard the sound, thus conclusively proving that sound did exist for those unfortunates and only needed further patient development.

GOOD CONDITION NECESSARY.

All this time the general condition must not be lost sight of; urine examined, bowels kept open, regular bathing and sleep, avoiding overexertion, prevent worry and the like. Patients treated in this way, the internal ear being normal, will gradually improve. Even sclerosis, when not gone too far, will be benefited. When, however, anchylosis of the stapes exists, prognosis

is always bad. Hearing better in a noise is usually an accompaniment of sclerosis and should put one on guard. Past middle life hearing often decreases, which must be borne in mind.

TREATMENT BY AIR BAG.

Catarrhal deafness in younger people is treated by all practitioners with the air bag, its object being to open the Eustachian tube and by that treatment keep it permanently open. Why? When the tubes are patulous the pressure within the middle-ear is equalised as in normal hearing. When the tubes are closed, the air contained in the drum is gradually absorbed and the pressure from without causes the drumhead to be pushed inwards, and thus we often see the deformity called retraction. The action of compressed air is felt in the Eustachian tubes, the membrana tympani and the structures covering the fenestræ ovalis and rotunda. The tube is distended, secretion removed and reduction of hyperemia favored, it forces the drumhead outwards and thus drawing with it the ossicles, which, if formerly much impeded, will immediately react to vibratory motion. In acute cases with severe pain, mild inflation will often relieve the pain instantly. When fluid is present without pain, it is not safe nor recommended to inflate the ears.

Bands of connective tissue, which tie down the ossicles, can often be influenced by forcible stretching, in crowding the membrana tympani outwards. In this way abnormal labyrinthine tension may be relieved by lessening stapedia pressure. In short, in reëstablishing normal air pressure we favor subsidence of hyperemia, hyperplasia, or even true thickening by gradual absorption, which can be noticed by improved hearing and which in true hypertrophy is very slow.

SCHOOL CHILDREN.

Probably all of our teachers in the different schools have noticed some of their pupils not so attentive as others, or duller intellectually than the average child. If the children were properly examined it would be found that in many cases there is a definite degree of deafness, which lies at the bottom of the trouble. A vast majority of these cases might be relieved and the children become as active as the rest. It may be well to bear in mind that the younger the patient the better the prognosis, and to the family physician is delegated the task of properly directing his patients, and getting thereby everlasting gratitude.

In closing, permit me to remark, as soon as the laity are educated to the fact that hearing can be restored in a great measure, by proper treatment, extending over a sufficient period of time, there will not be nearly as much deafness as there is at present.

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CLINICAL REPORTS.

The Best Alkaline Wash.

By W. HARPUR SLOAN, M. D., Philadelphia, Pa.,
Chief of Ear Department, Medico-Chirurgical College.

There are many alkaline preparations on the market that are used daily with varied results in conditions where such a preparation is indicated. I have tried most of them in all conditions and after an impartial trial, I am compelled to say that the preparation known as glyco-thymoline, made by Kress & Owen Co., stands at the head of the list; its formula is one that would commend its use, the ingredients being of an antiseptic and non-irritating nature.

Having formed this opinion of glyco-thymoline, I submit a report of a few clinical cases where it has given me good results.

Case I.—M.L., aged 26 years, came under my care suffering with a distressing case of ozena. The turbinated bones on both sides of her nose presented a condition of marked atrophy; there was a complete loss of smell and taste, and a formation of crusts in the nasal chamber, and stench of same was foul. She complained of continual headache and other symptoms of a depleted and run down system. I placed her on a tonic of iron, arsenic and strychnia, internally; locally, I ordered the use of glyco-thymoline in a Birmingham douche, three times a day, diluted. After a month's treatment the crusts had ceased to form; there was a complete restoration of taste and a slight return of smell; the general health was improved, and the patient herself well satisfied with results.

Case II.—C. A., aged 8 years, came to me suffering with a severe otorrhea following scarlet fever. There was a muco-purulent discharge from both ears that rendered the child completely deaf; the auditory canal was excoriated and sore, and the general health below par. I used cod liver oil internally, and syringed the ears three times a day with glyco-thymoline. At the end of one month the discharge of pus had stopped; the hearing much improved, and the child's general health very much better.

Case III.—J. W., aged 25 years, came under my care suffering with an aggravated case of cystitis, which had been treated by several of our best physicians, without much improvement. He had great pain in the region of the bladder and loins, which became worse on urination; a heavy deposit of mucus and some blood in the urine made his condition more distressing; his temperature was 100° , which would rise a degree during the periods of pain. I used the usual treatment for such cases without positive results, when I thought of irrigating the bladder with glyco-thymoline (dilute). This I did once in the twenty-four hours, at the same time giving him glyco-thymoline internally in teaspoonful doses every three hours. For the first two days I did not see much improvement; on the third day there was no blood in the urine and less mucus. I continued this treatment for two weeks, when I discharged him cured.

Case IV.—J. H., aged 35 years, consulted me for pruritus ani which had troubled him for several years; his business compelled him to sit the best part of the day. He had used various ointments, prescriptions, and the like, for this troublesome affection, with only temporary relief. At his first visit I ordered him to bathe the rectum twice daily with castile soap and warm water, then to apply glyco-thymoline, half strength, to the parts. After persisting for a time, the swelling and severe itching was lessened, and soon ceased altogether.

Extraordinary Results in the Treatment of Diphtheria.

By FRANCIS E. FRONCZAK, M. D.; Buffalo, N. Y.

The following is a report on two cases of diphtheria in which I used antidiphtheritic serum with extraordinary results:

The first case was that of a boy one and a half years of age. I was called to visit the child on the third day of the disease and found him suffering from diphtheria, the tonsils being very much enlarged and swollen, and membrane present in large quantities. I wished to intubate, but as the family objected, I administered 2,000 units of the antidiphtheritic serum of Messrs. Parke, Davis & Co., following with 1,500 units in the evening of the next day. Three days afterward he was out of all danger, and a culture made on the tenth day of the disease was reported by the Health Department to contain no Klebs-Löffler bacilli.

The second case was that of a girl, 6 years old. I was called on the fifth day of the disease, and found the patient comatose. Here again it seemed to be that intubation was the only means of saving the girl's life, but the family being opposed to it, I gave her 3,000 units of antidiphtheritic serum (P., D. & Co.) following two days later with 2,000 units more. Six days after the first injection the girl was up and around the house. On the

thirteenth day of the disease a culture sent to the Health Department was reported on negatively.

The usual applications of antiseptics were employed in addition to the treatment with the antidiphtheritic serum, yet I do not hesitate to say that the serum was the means of saving life in both cases. I have also used the same brand of serum in eight other cases during the last two months, and thus far I have had no fatalities.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

REPORTED BY F. W. MCGUIRE, M. D., Secretary.

THE stated meeting of the Buffalo Academy of Medicine was held at the Academy rooms, Public Library Building, Monday, November 18, 1901. The president, Dr. CHARLES G. STOCKTON, called the meeting to order at 9 p.m.

The minutes of the last stated meeting were read and approved.

The council recommended the election of Drs. Bernard F. Dennis, of Niagara Falls, and William R. Campbell, of Niagara Falls, for nonresident membership. They also recommended the election of Drs. James A. Gardner, Earl P. Lothrop, F. A. Drake, Ulysses B. Stein, Jacob Goldberg, Jacob M. Kraus, H. A. Kendal, George S. Staniland, Herman K. DeGroat, Francis M. O'Gorman, Julien A. Riester, Clark E. Ernest, George Roberts, William Irving Thornton, Arthur McCarthy, George A. Sloan, A. McNiel Blair, James J. Mooney, J. F. Whitwell, and Bert C. Johnson for resident membership.

They were separately balloted for and elected Fellows of the Academy.

The Hartwig prize was presented to Dr. Irving P. Lyon by Dr. Stockton in his usual able manner. In accepting it Dr. Lyon made appropriate remarks.

Dr. JEWETT moved a vote of thanks to Dr. Grover Wende for the large number of members he had secured for the Academy.

The section of ophthalmology provided the following program, The operation for extraction of cataract, as originally devised by Dariel, A. A. Hubbell.

Dr. B. H. GROVE presented three cases: (1) Iron in the iris; (2) iron in the lens; (3) paresis of the motor oculi of the left eye following a blow.

Dr. A. A. HUBBELL presented an interesting case of exophthalmos of the left eye.

Dr. LUCIEN HOWE explained the necessity of the uniformity of the test type.

Attendance, 32; adjourned at 10.45 p.m.

*Section on Ophthalmology, Otology, Laryngology and Rhinology,
October 14, 1901.*

REPORTED BY A. G. BENNETT, M. D., Secretary.

The second regular meeting of the Section of Ophthalmology, Otology, Rhinology and Laryngology was held on Monday evening, October 14, 1901 in the Academy rooms.

Dr. GEO. F. COTT read a paper on the Non-surgical treatment of some of the commonest forms of deafness. (See page 349.)

Dr. CASEY A. WOOD, of Chicago, read a paper on the Eye symptoms of exophthalmic goitre. (Will appear in full in subsequent number of the JOURNAL.)

Dr. ALVIN A. HUBBELL said he objected to the use of proper names applied to diseases, as the custom confused the student. He agreed with Dr. Wood as regards the theory of intoxication, and believed that treatment carried out on these lines would eventually prove the successful method.

Dr. JAMES W. PUTNAM spoke of the influence of fright and emotion. He related a case of railroad accident which was followed by exophthalmic goitre, and a second in which a fireman was notified of his father's sudden death, the shock of which induced the disease. He also instanced cases in which the emotions, such as fear, stage fright, and the like, produced marked effect on the secretions. His experience is that the exophthalmos is a late symptom.

Dr. MARCEL HARTWIG mentioned the success of Jonnesco's operation of the removal of the cervical sympathetic, but because of Claude Bernard's experiments, which showed shrinkage of the brain, would hesitate to recommend it.

Dr. ELMER STARR, chairman, reported a case in which optic neuritis occurred, followed by mania and death in three weeks. Autopsy showed tumor in occipital region.

Dr. A. G. BENNETT reported a case in which the exophthalmos was limited to the left eye and in which the eye was lost from corneal necrosis.

Dr. Wood in reply said he believed in the emotional theory, as he had seen such a case. He believed in the hygienic treatment rather than drug method, and that when the medical treatment failed surgery should be employed. He thought that the Jonnesco operation should be advised.

Dr. Lucien Howe moved a vote of thanks to Dr. Wood, which was carried.

Dr. George F. Cott then reported a case of mastoid disease, in which he had cut down on the lateral sinus, and removed a large thrombus—specimen shown—with a result of perfect recovery.

Meeting adjourned at 10.45 p.m.

Roswell Park Medical Club.

REPORTED BY GEORGE F. COTT, M. D., Secretary.

The second meeting of the Roswell Park Medical Club, was held October 7, 1901, at the club rooms in the Mooney-Brisbane Building.

The paper of the evening was read by Dr. J. H. Potter, entitled, Consideration of some of the functional signs of diseases of the stomach. (See page 341.)

DISCUSSION.

Dr. BAGLEY—This is a good paper, but a little deep. I think a whole lot depends upon familiarity with the method in use for examining stomach contents, which Dr. Potter laid before us tonight. It is a question whether the general practitioner has the time to go into it. A specialist, of course, knows much more about it. The absence of HCl. may mean cancer and it may not.

Dr. MEISBURGER called attention to Einhorn's stomach bucket, preferring it to the more uncomfortable tube.

Dr. THOMPSON—I was much interested in the paper of the evening and agree with Dr. Potter in the importance of working out carefully cases of so-called indigestion. There can be nothing more unscientific than the old way which may still obtain at times of calling certain cases of dyspepsia, and proceeding to administer drugs without knowing there is the least scientific

indication for their use. Some years ago I learned from Dr. Stockton his methods of securing and analysing stomach contents, and in all important cases coming to me, I use more or less the methods outlined by the essayist. The device exhibited by Dr. Potter for securing stomach contents undiluted is new to me, and I am thankful to have seen it. I will certainly use it in the future. I would add that after testing for hydrochloric acid it is not often necessary to test for the fatty acids; if present, they can usually be detected by the sense of smell.

DR. GEO. F. COTT read a paper on the Non-surgical treatment of some of the commonest forms of deafness. (See page 349.)

DISCUSSION.

Dr. GIBSON—I think the essayist, heading the paper as he does, Treatment of the commonest forms of deafness, attributes too much to the general practitioner and I think such cases should be relegated to the specialist unless he directs the proper course of treatment. My own experience is of no particular value.

Dr. BAGLEY—We cannot expect too much of the general practitioner. Such cases are very stubborn and though we occasionally get good results, it is often better to send them for special treatment. Last winter I treated one case with the politzer bag, which improved materially, still the discharge continued after the treatment was stopped.

Dr. MEISBURGER confined his treatment of ear diseases to those cases of deafness caused by incipitated cerumen or a neglected plug of cotton.

Dr. J. H. POTTER highly commended the paper as plain, practical common sense, and, though coming from a specialist, such as the general practitioner can understand. One of the chief difficulties was to keep the patient under control long enough to accomplish any satisfactory result. In this respect the specialist has a great advantage.

Dr. MCINTYRE commended Dr. Gibson's view that such cases should be treated by the specialist or under his direction. The matter of accuracy of deafness is of the utmost importance.

Dr. THOMPSON, as president, tendered the thanks of the club for the essay.

Dr. COTT said, in closing the discussion, that his purpose in writing the paper had been to bring in the subject before the

general practitioner. It had never been presented in this manner by any text-book at their disposal. None of them go into detail. He has very little difficulty in controlling patients and holding them for any length of time. They are always informed that it may require from three months to three years to gain permanent result. A certain small percentage of cases can not be improved under any kind of treatment and a few even get worse. Differential diagnosis is not surrounded by as many difficulties as it appears. Cases resolve themselves into two great classes: hypertrophy and atrophy, or sclerosis. A vast majority of cases, over 80 per cent., occur in the young. In sclerosis we have a thinning of the membrane and connective tissue formation, and then again treatment in hypertrophy gives always immediate result, if but momentary. In sclerosis, treatment makes absolutely no impression and that is one of the cardinal points in diagnosis. When deafness is due to obstruction in the external meatus, the history is generally that of sudden onset. It is remarkable how much can be heard through a pinhole opening, an epithelial scale or other foreign substance shutting off this opening, suddenly cuts off the sound waves and thus deafness follows. Another condition of sudden deafness may occur in a case of apoplexy during sleep. This must be differentiated from deafness caused by cerumen. In order to treat deafness successfully, a normal nose and post nasal space is necessary. After having accomplished that, the deafness becomes stationary for quite a while, but by proper treatment, gradually improves. In many cases we have a condition of hyperplasia instead of organised hypertrophy, and which gradually subsides by equalising air-pressure and a more or less normal condition ensues.

PROGRESS IN MEDICAL SCIENCE.

Obstetrics, Gynecology and Abdominal Surgery.

CONDUCTED BY WILLIAM WARREN POTTER, M.D., Buffalo, N.Y.

DIAGNOSIS, ETIOLOGY, PROPHYLAXIS AND TREATMENT OF CYSTITIS,
PYELITIS AND PYELONEPHRITIS IN WOMEN.

T. R. BROWN (*New York Med. Jour.*, Vol. 74, No. 9,) thus summarises an excellent article:

I. The great majority of cases of pyelitis, pyelonephritis and cystitis are due to infection with various microorganism (of

which the colon bacillus is the commonest) which may reach the kidney or bladder either exogenously or endogenously.

2. That in the majority of cases the condition either can be prevented or can be cured if the conditions underlying its development are recognised and understood, and the correct measures inaugurated.

3. There are various conditions, such as urinary hyperacidity, which may simulate almost exactly true vesical infections, and yet in which misinterpretation and improper treatment may lead to the development of a true cystitis and its deplorable consequences.

4. In no condition is prophylaxis more essential than in that of the infections of the urinary tract, while to be able to prevent such conditions we must have constantly before us the danger of the development of infection in all cases associated with conditions which tend to lower the general resistance of the patient, and also those which render the bladder susceptible to infection, especially by the trauma of an operation or catheterism.

5. While an absolute diagnosis of renal infection can be made only by ureteral catheterism, in the majority of cases a very probable diagnosis may be arrived at by a consideration of the relation between the grade of albuminuria and pyuria and by careful cystoscopic examination of the bladder, especially that portion about the ureteral orifices, and the character of the urine flowing therefrom.

6. Contrary to the opinion expressed in the majority of text-books, a great majority of the infections both of the bladder and of the kidney are associated with acidity of the urine—that is, are due to microorganisms which do not split up the urea.

7. Probably in the majority if not in all the cases of renal affection due to a urea-decomposing microorganism, after the condition has lasted for a certain length of time, a stone is formed by the decomposition of the precipitated salts about the bacteria as a nucleus.

8. And, finally, to be able to thoroughly understand the cases of cystitis, pyelitis and pyelonephritis brought to our notice, to make the proper diagnosis, to inaugurate and carry out a rational line of treatment, to be conversant with the proper means of prophylaxis, and to give a correct prognosis, a careful chemic, microscopic and bacteriologic study of the urine is absolutely essential.

THE COMPLICATIONS AND DEGENERATIONS OF FIBROID TUMORS OF
THE UTERUS AS BEARING UPON THE TREATMENT OF
THOSE GROWTHS.

C. P. NOBLE (*Am. Jour. of Obstet.*, Vol. 44, No. 3,) in concluding a paper with the above title, says:

It is gratifying to contrast the results which can be secured through the resources of modern gynecology with those which would follow an expectant plan of treatment. The mortality of hysterectomy and myomectomy is variously estimated at from 2 to 10 per cent. In a series of 345 cases published by myself in 1897, the mortality of hysterectomy by supravaginal amputation in the hands of five American gynecologists was 4.9 per cent.; in a series of 100 total hysterectomies the mortality was 10 per cent. In a collection by Olshausen of 806 cases of supravaginal amputation, the mortality was 5.6 per cent., contrasted with a mortality of 9.6 per cent. in a collection of 520 cases of total extirpation. According to Bishop, Mr. Christopher Martin reports 35 cases of total extirpation, with a mortality of 2.8 per cent.; Doyen 60 cases, with a mortality of 2.6 per cent.; A. Martin 81 cases, with a mortality of 7.4 per cent. The advocates of vaginal hysterectomy for fibroid tumors report equally as good, if not better results.

The results of myomectomy indicate that enucleation is a more dangerous operation than hysterectomy, although in the hands of trained men the results are excellent. Kelly reports 97 myomectomies, with 4 deaths. This is to be contrasted with 307 hysteromyomectomies, with 15 deaths, or a mortality of 4.8 per cent. MacMonagle reports 65 cases of myomectomy, with no death.—*Memphis Med. Monthly*.

DIFFICULT POINTS IN GYNECOLOGIC DIAGNOSIS.

AFTER alluding to the difficulties of gynecologic examinations in many cases, Krusen (*Phil. Med. Jour.*) discusses the subject of the diagnosis of uterine carcinoma, and to aid, suggests the following points which will be found useful though they may not be applicable to every case:

1. The usual friability and vascularity of the tissue, which, if not detected by the finger, may easily be made apparent by hooking a tenaculum into the suspected area. The tenaculum will immediately tear out and cause abundant bleeding from the carcinomatous tissue.

2. A close adhesion of the mucous membrane of the portio to the parenchyma.

3. The difficulty in cervical dilatation as evidenced by the introduction of a tent. In a cancerous process there is, as a rule, a continuance of the hardness after dilatation.

4. Bleeding is easily provoked by an examination or by any unusual exertion or manipulation.

5. The characteristic induration of the cervix is almost imperceptible at first, but increases as the disease progresses.

6. Puncture of any suspected nodules or follicles will differentiate carcinoma from cystic follicles or distended glands.

7. Ulcerated or eroded areas which are not speedily amenable to treatment should be regarded with suspicion.

8. Any enlargement of the uterus occurring after the menopause, is usually due to malignant disease. (Fisher.)

9. An early diagnosis can only be made with absolute certainty by microscopic examination of either an excised wedge from the suspected cervix, or, in cancer of the body, of portions of the endometrium removed by curetage. The value of the examination will depend upon the experience and competency of the pathologist.

Epithelioma is less frequent, but it is liable to be confused with: (1) simple vegetations; (2) lupus of the vulva; (3) syphilitic affections; but the first, the simple vegetations, secrete a virulent fluid unlike the ichor of cancer, they readily yield to an energetic caustic which prevents their reproduction, and they have no hardened base, being remarkable for their softness. In the case of lupus, the vulva is red and presents scattered fungous ulcerations which are without any indurated base; while the syphilitic chancre is more limited and has a little circle of characteristic indurations. Other points of difficult diagnosis referred to are the ectopic pregnancy, the differentiation of appendicitis from pyosalpinx or ovarian disease; ovarian cysts from ascites, and the perplexing problems of pregnancy complicated with typhoid.

THE VALUE OF CONSERVATIVE TREATMENT OF THE UTERINE APPENDAGES.

A. GOLDSPOHN (*Jour. Amer. Med. Assn.*, August 24, 1901,) says that in view of the extreme value of the conservative treatment of the uterine appendages, and that there are a few who still doubt the success of these methods, he has undertaken a study

of the cases upon which he has performed such operations during the past three years. Of 128, it was possible to ascertain the actual condition in 97. Of this number 80 were examined by himself or other physicians, and in 17 cases an accurate and complete written statement by the patient was obtained. Nine were treated by anterior median vaginal celiotomy, 32 by median ventral celiotomy, and 56 by bilateral inguinal celiotomy through the dilated internal inguinal rings in conjunction with an Alexander operation.

In dealing with single or isolated cysts of the ovary the projecting portion is cut away and the lining membrane is peeled or scraped from the remainder, the wound being closed with continuous sutures of fine catgut. Hard and contracted cicatricial parts are occasionally exsected, forming a V-shaped wound, which is closed in the same manner. Multiple cysts near each other, when more deeply situated, are opened by a straight or curved incision on the free border of the ovary and extending usually not more than half-way through it. By this incision all follicles of one centimeter or more in diameter are opened, and the lining is peeled or scraped out. The wound in the ovary is then closed by two sets of sutures, one going to the bottom of the wound and the other coaptating the edges. He uses for this fine catgut, hardened in formalin and sterilised by boiling, but never chromicised. The needles are fine, round, noncutting, and have a full curve.

A tube that contains pus is always sacrificed. In cases where the ovary can be liberated and saved with or without resection, and its tube is closed and but little distended, the latter is walled off with gauze and opened and its contents removed. By suturing a permanent opening is made into the tube, providing its contents are not purulent or tubercular. The value of these conservative methods is widely shown in the results; approximately 85 per cent. were free from pain and depressing nervous and circulatory disorders and enjoying good general health. Pregnancy occurred in 10 per cent. of the cases.—*Medicine.*

Neurology.

CONDUCTED BY WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

INSANITY AS A DEFENSE IN CRIMINAL CASES

EASTMAN, B. D., Topeka, Kas. (*Medical Age*, October 10, 1901), says: There are five points of view from which insanity as a

defense in criminal cases will be considered: (1) the judicial; (2) the medical; (3) the popular; (4) the individual; (5) the expert.

The Judicial View.—Knowledge of right and wrong is the judicial test as to responsibility for crime. Every person by the common law is supposed to be sane and responsible unless the contrary is shown by the party pleading insanity as a defense. To make it a successful defense, insanity must be shown to be the result of disease either congenital or acquired, and to be of such extent as to destroy the power of distinguishing between right and wrong as to the particular act in question. It is not sufficient to claim that the accused has been impelled to commit crime, but he must be unable to discover or appreciate his legal and moral duty regarding the act in question. Indeed, as to moral influences impelling to crime, the bench has laid down the dictum: "Every crime was committed under an influence of such a description; and the object of the law was to compel people to control these influences." (Rolf. B. in *Rogers vs. Hemet.*) Judge Cox in his charge to the jury in the Guiteau case said:

An irresponsible insane man can no more commit murder than a sane man can do so without killing. His condition of mind cannot be separated from the act. If he is laboring under disease of the mental faculties, if this is a proper expression, to such an extent that he does not know what he is doing, or does not know that it is wrong, then he is wanting in that sound memory and discretion which make part of the definition of murder.

The judge further states that if insanity be established to the degree which may be called total insanity, the defense is perfect. But it is in the so-called cases of partial insanity—for want of a better term—that difficulty arises. For a person afflicted with so-called partial insanity may commit offenses with which his infirmity has nothing to do; or he may commit a criminal act the nature and consequences of which he fully understands, and to the doing of which he is led by the same considerations that ordinarily govern in such cases.

Time will not allow an extended reference to judicial utterances on this question, and while the dictum laid down in the celebrated *McNaughton* case, that knowledge of right and wrong determines responsibility, has been somewhat mitigated in recent years, it still constitutes the substantial basis of judicial utterance.

The Medical View.—Many medical writers held to the view

that whenever there is any mental disease the party is entirely irresponsible, and insist that there is no distinction between medical insanity and "legal insanity." On this subject Spitzka says:

On some occasions the question of defining what is called 'legal insanity' may be presented to the reader of these lines. When that question is asked, he may safely challenge the questioner to show him a broken leg or a case of smallpox in a hospital ward, which is not a broken leg or a case of smallpox in law; to show him a tumor or a softening of the brain, which is meningitis or sclerosis in law, or to define the conditions under which any disease-symptom becomes an indication of health. When these conditions are complied with, and not till then, may the physician attempt to define 'insanity in law' as distinguished from insanity in science. In the meantime, he may rest contented with the dictum of one of the best legal authorities that that cannot be sanity in law which is insanity in science, just as nothing can be a fact in science, and a fiction in law at one and the same time.

But there is a growing tendency among psychiatrists to look upon this view as too extreme to meet the practical every-day requirements. Theoretically, every person who is mentally diseased in any degree is of unsound mind, just as every one who is affected with any physical infirmity is of unsound body. But a person may fall short of perfect soundness of body and not be incapacitated for general physical activity. It may be only when his infirmity is brought in contact with a certain class or standard of material demands, that his physical impairment becomes manifest and he exhibits physical incapacity. A broken leg is a broken leg both in medicine and law, but a medically diseased leg need not be a legally useless one.

There is no question that in case of total insanity (as expressed by Judge Cox) there is total irresponsibility. It is in those cases which lie along the border-line between sanity and insanity, and when at times the mind may be controlled by ordinary considerations, and at others be under the sway of unusual, morbid, irrational impulses, that doubt and difficulty arise. Just as bodily disease may exist to an extent which requires medical treatment but does not incapacitate for most of the ordinary physical responsibilities, so there may be a limited mental impairment which demands medical treatment, but does not ordinarily incapacitate for most of the moral responsibilities. It is only when some unusual psychic demand is made that mental incapacity is clearly manifested. The border-land of insanity, the debat-

able ground between complete responsibility and clearly admitted irresponsibility, is a broad step with ill-defined, irregular, ever-shifting boundaries.

The Popular View.—The popular view is variable, volatile and impulsive. It is as likely to err one way as the other. In a well-marked case of total and previously recognised insanity the popular view will generally be correct, but in other cases the public may jump at conclusions that will be erroneous. In the one case the popular verdict may hold the perpetrator sane and responsible because insanity has not been publicly manifested, when in fact it undoubtedly exists; in another case atrocity is held to show insanity when every indication points to deliberate, predetermined, responsible action. Such conclusions depend often upon the confounding of the unnatural condition which generally determines criminal acts with an irresponsible one due to disease. Thus, in a case of alleged patricide, the atrocious circumstances led many to say that if the party charged therewith committed the act he must have been insane, when the circumstances were such that an admission that the act was committed as charged necessarily carried with it an admission that the party accused thoroughly comprehended the nature and consequences to himself by aid of an intermediary.

Another phase of the popular view which not unfrequently sways a jury in deciding upon a verdict is in reality simply a sentimental justification of the act in question, as when a man wreaks his vengeance on the despoiler of his home or seducer of his daughter.

The Individual View.—When a person has been arraigned for the commission of a serious crime—homicide, for instance—for which he has no other defense, his friends, his lawyer, and frequently he himself turn to insanity. It is all at once brought out that he has been subject to “spells,” and whether these “spells” be actual attacks of insanity or epilepsy, or are due to drink, to violent, unrestrained temper, or to inherent viciousness, they are made to do duty as indicative of irresponsibility. In this way much discredit is brought upon the legitimate use of insanity as a defense. The rule is that the really insane do not admit their insanity.

The Expert View.—These different views of insanity come more or less in conflict whenever insanity is alleged as a defense in any criminal trial. The end and aim of judicial procedure is, or should be, to arrive at the truth. One of the methods by

which it is sought in criminal trials is to enlighten the court; counsel often attempt to use the expert to confound the jury.

The great difficulty with which the expert witness has to contend, and which often misleads and confuses the jurors or induces them to ignore his testimony, is that he is selected or "called" as it is termed, in the interest of one side. He becomes, often unconsciously, amalgamated to the side which calls him, and being obliged to give his testimony in answer to a shrewdly formulated hypothetical question, he is prevented from giving the jury and court the assistance which it should be his proper function to render.

Various methods have been suggested as likely to enhance the real value of expert testimony and still preserve the rights of each party. In my opinion, the best way to secure competent, unbiased, helpful expert testimony, would be a provision of law authorizing the judge in every case where insanity is alleged as a defense to appoint one or more experts to thoroughly examine the case and report their finding to the court. Such experts would, like the judge, be impartial, would seek to ascertain the truth, and, like the judge, should be paid by the State a reasonable compensation irrespective of their finding. Such finding would be what all expert testimony ought to be, a genuine expert aid to the court.

The finding should contain the facts upon which it is founded and explain the meaning of such facts, and counsel should be allowed to introduce testimony as to the correctness of these alleged facts and their bearing upon the case. The experts should be allowed to fully explain their opinions, but the distorted hypothetical question and the badgering, often ridiculous, cross-examination should not be allowed. It may be claimed that in order to accomplish these results changes in our laws would be requisite. Then let us have the changes.

INFECTIOUS DISEASES AND EPILEPSY.

TURNOWSKY, M., reports in the *Wiener Med. Wochenschrift*, 35, 1901, three interesting cases in which infectious disease apparently cured the patient of epilepsy. The first patient was 38 years of age, and had suffered from epilepsy since her sixteenth year. In her twenty-third and twenty-fourth years she often had as many as fifteen to twenty seizures in a day. These seizures were typically epileptic, and so severe that two or three days were often required for complete recovery from one of

them. After a very severe and long-continued seizure, on one occasion, the patient was attacked with a severe chill, followed by the development of a right sided croupous pneumonia. She made a normal recovery, and in the fourteen years that have since elapsed she has not had a single epileptic attack. Her functions are all normal.

The second case was a woman 34 years old, who had suffered from chorea in her eighth year, so severe that she could not eat without assistance. In her seventeenth year the St. Vitus dance ceased. In her eighteenth year she married. After this she aborted in the eighth month of pregnancy. One month later she had her first attack of epilepsy. She had two or three, and later five or six seizures a month. In 1891 she had a right-sided pneumonia, and from that time to the present she has been free from epilepsy.

The third case was a boy of 12 years, who, since the middle of his second year, had suffered from ten to fifteen severe epileptic seizures daily. His mental development had been greatly retarded; he was, in fact, an idiot, making only inarticulate sounds and devoid of habits of cleanliness. In his sixth year he had scarlet fever, and in the six years since that time he has not had an epileptic seizure. He has learned to speak fairly well, has improved intellectually and is in excellent health.

From the results in these cases the author concludes that it would not be reprehensible to place an epileptic in a position favoring the contraction of pneumonia, or to place an epileptic child in the same bed with one suffering from scarlet fever during a mild epidemic of the disease.—*Lancet-Clinic*.

A CASE OF DELAYED APOPLEXY FOLLOWING TRAUMA.

BRUNS, O., (*Deut. Med. Woch.*, Sept. 12, 1901,) reports a case of a man 41 years old, who was struck on the head while at work. He did not become unconscious, but went on with his work, complaining to his fellow workmen of some headache. Four days afterward he was seized with a spell of sneezing, after which vertigo, vomiting and complete unconsciousness set in. He died the next day. The autopsy revealed a marked cerebral hemorrhage in the right hemisphere due to the rupture of a small aneurism near the corpus striatum. The author says that death was either due to the rupture of the vessel simply without any relationship to the blow, or that the trauma produced the acute aneurism and the sneezing caused its rupture. He believes the latter to be the cause which makes the sixth reported in the literature.—*Med. Age*.

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No. 5.

The Health Department of Buffalo.

WHEN the present city charter went into operation, now about ten years ago, the old board of health, with a health officer as a subordinate, was legislated out of being, and a new department under the control of a commissioner of health was created. That the system thus established has proved a benefit to Buffalo will not be disputed by any observing person. At the end of a decade, however, it may not be out of place to recall some of the important work that has been accomplished by the department. A bacteriological laboratory was established early in its career, though after considerable opposition on the part of the city legislature. At the present day, it would be next to impossible to conduct the department of health on a scientific basis without such a laboratory, presided over by a competent bacteriologist, as in the present instance.

Another innovation ordered by the present health commissioner was the reporting of contagious diseases by telephone, thus avoiding the delays entailed by other methods,—a most advantageous plan. His department, too, was the first to keep its office open at night to receive complaints of emergency and issue permits to undertakers. It may be understood, therefore, to be open continuously 365 days in the year,—nights, Sundays and holidays being included in the emergency service.

The present commissioner of health, some seven or eight years ago, succeeded in closing the Bird Island Pier inlet, which cut off a contaminated water supply to the city, thus reducing the danger of typhoid infection. With the coöperation of the State Board of Health and the State Department of Public Works, the commissioner succeeded in getting the Hamburg Canal con-

demned, a step that directly leads to the abatement of this perennial nuisance which is not only an eyesore to our people but a receptacle of filth and contagion.

The existing milk ordinances, which besides paying for themselves are sources of revenue, turning over to the city treasury from \$1,500 to \$2,000 a year, and are serving as models for other cities, were enacted at the instance of the present commissioner of health. Free public baths are also to be passed to his credit as one of the most progressive sanitary measures of this enlightened age.

The long-tube nursing bottle is another trophy hanging in the belt of this useful public officer, and through its abolition the lives of thousands of infants have been saved. Moreover, the ordinance on the subject has been adopted in other countries, notably by England. The general protective care of children in hot weather is another feature, akin to the long-tube bottle, which deserves mention.

Finally, the registration of contagious diseases to the milk routes has detected four epidemics of typhoid disease and four of scarlet fever, thus again saving hundreds of lives both of children and adults. In all this, there is economy which benefits the poor man very directly, for to prevent disease is to protect his interests, make him self-supporting, and contribute to his usefulness as a citizen. A sick person is a most expensive indulgence for a municipality to cultivate.

There are many other subjects of importance that might be dealt with in considering the health department and the good work it has done and is doing, but these are among the essential improvements which the present commissioner has put into practical operation.

A faithful, fearless, and honest public officer, who conducts his affairs efficiently upon a non-partisan principle, deserves the cordial thanks and loyal support of every intelligent citizen.

We have been led to these observations because it is known that the mayor-elect will soon be called upon to make an appointment of a commissioner of health to fill the vacancy that will occur at the end of the year, when the term of the present incumbent expires.

The health department is the only branch of the municipal government in which the medical profession has a right to advise as to its administration. It did advise as to the present heads of that department, its advice was heeded and it is not

ashamed of the record that has been made—namely, a low death-rate, comparative freedom from epidemic disease, economy and non-partisanship in its conduct.

The JOURNAL has nothing but the kindest feelings and respect for the many physicians whose names have been mentioned for the succession; if one or all were connected now with the health department and its achievements had been the same we should advocate their retention. But it believes that it reflects the opinion of the great majority of the medical profession of Buffalo, as well as of many large tax-payers who are not physicians,—republicans and democrats, alike,—when it suggests the retention of the present staff of the health department intact. It believes that distinct continuity in office is necessary to the highest efficiency, that scientific intelligence in public sanitation should be the only aim, and that the action indicated herein would be both good business and good politics. We are aware that it requires great stamina of character to stand up against the political field on such a question, but it is believed that Mayor Knight is such a man.

The Automobile.

WITH the addition of the motor vehicle to our methods of transit, new problems of danger are presented to pedestrians in particular in every large city. Already in Buffalo a sufficient number of accidents has occurred, attributable to carelessness by chauffeurs, or the too great speed of their machines, to justify some supervision of this new method of travel and traffic.

With the increase in trolley cars along our principal streets, and the large army of male and female bicyclists, together with the reckless delivery wagon drivers, it has become nearly impossible for people afoot to cross without danger to life or limb. Now, to all this is added the automobile with electric or steam-power, driven by a novice or other indifferent person who cares for naught except his own comfort or sport.

Most persons who preside at the lever of these carriages appear to regard their whole duty as discharged when they have clanged their bells which, for the most part, is done at a time when they startle a person or a horse and add confusion to the already confounded pedestrian or beast. The steam vehicles, too, are a source of fear to many horses which is a further cause of danger.

We are fully of the opinion that the automobile is a useful carriage and will grow in favor if it is properly handled; but those who use it must understand that they do not possess the right of way over every other method of traffic. They must be made to realise that as yet they are in minority and cannot trample on the rights of others with impunity, especially when they use such a powerful machine fraught with danger, if uncivilly or unskilfully guided.

We have felt impelled to allude to this matter now in the hope that some action may be taken to properly regulate this useful carriage, and prevent accidents that belong to the preventable class.

Pan-Am's Farewell.

JAMES B. PARKE, JR., in *Buffalo Evening News*, November 2, 1901.

Good-bye,	Be wise ;
It's the final call,	Just go and bury all your
My last breath,	Hammers and
So come one, come all	Hatchets and
And be in	Knives and
At the death.	Clubs and
It will be the	Other implements,
Greatest sight to see—	For those instruments
All jollity,	Generally knock
Frivolity.	The wrong people and
So come ;	In my opinion
Be on hand as it will	Your Uncle Sam's
Help some.	Cool million
I know that as a	Won't shower much on any
Financial proposition	Rough House
My position	Cotillion.
Is unique,	Anyhow, don't forget that tomorrow
But as a show	I'm a has-been,
I also know that no	So come in
One ever saw anything so	Today
Beautiful.	From everywhere about—
So come and have a	For tonight
Parting peek.	My light
And after my	Goes
Demise	Out !

THE Infant Incubators installed at the Pan-American Exposition by the Qubata Company made a splendid record. Of the 52 infants brought to the institution 48 were delivered into the

hands of their mothers at the close of the season in a healthy and prosperous condition. Four died in a few hours after arrival or were dead when they were brought in. This is a worthy record and it is interesting to note that the children's hospital in Bryant Street is to have an incubator ward, orders having been given to the Qubata company for the necessary apparatus. It will probably be a few weeks before the incubators are installed, as they have to be made in Germany and shipped thence to Buffalo.

THE appearance of smallpox in Buffalo may be considered as a legacy of the exposition. It was to be expected, when we consider the vast number of people that visit a city at such a time. Some will come unprotected from the disease and such are almost sure to bring it and spread it in their trail. The health commissioner succeeded in keeping the knowledge of its presence from the public, and in managing the condition so discreetly that no harm came to the exposition. The 12 or more cases that existed at that time recovered, and it was not until the close of the fair that the presence of the disease became generally known.

The disease is now increasing only moderately, but it may be expected to spread considerably more before it is stamped out. It took Chicago two years to rid itself of the contagion after the World's Fair, but that city was not prepared to deal with it as well as Buffalo is at the present time. The stringent measures adopted by the health department will bring it under control in a reasonable time; meanwhile, it is important for every person who has not been successfully vaccinated within a short time to submit to that preventive measure. There is no question in the minds of well informed persons as to its safety and reliability as a prophylactic. Revaccination is very important where the vaccine disease is not of recent date, and in all cases of liability to exposure.

PERSONAL.

DR. N. W. WILSON, of Buffalo, has been given the honorary degree of medicine man by the Broule Sioux Indians whom he served as such at the Pan-American Exposition. There was great ceremony at the council house when the title of He-wakes-them-up was conferred with the medical degree. The giving of

the name refers to the illness of Chief Blue Horse's wife. The old squaw fainted one day in July and Dr. Wilson revived her. Indians think persons die when they faint and look upon their revival as somewhat of a miracle.

MR. "DOC." WADDELL, the efficient and courteous press agent of the Indian Congress of the Pan-American Exposition, contributed greatly to its popularity. He is an experienced newspaper man having served in all capacities from that of "devil" to the city editor of a large newspaper. His experience is such in the show business, and it being so much to his liking, that it is more than probable he will be heard from again in that field. The JOURNAL wishes him the success he so justly deserves in whatever undertaking he may embark.

DR. T. GAILLARD THOMAS, of New York, who attained his seventieth birthday, November 21, 1901, was tendered a complimentary dinner in celebration thereof at Sherry's, which was attended by a large number of professional friends of the distinguished physician.

DR. CATHERINE E. KELLY, U. of B. '99, was interne at the Children's Hospital for eighteen months after graduation. Dr. Kelly has established an office at 585 Fillmore Avenue, Buffalo. Her residence is at 45 Highland Avenue, as heretofore.

DR. EARL G. DANSER, of Buffalo, was elected to the office of coroner at the last election. This is a gratifying fact to the medical profession, which has long contended that a competent physician should always be chosen to this office.

DR. L. DUNCAN BULKLEY, of New York, removed November 1 to 531 Madison Avenue, entrance on 54th Street, New York City. Consultation hours, 9 to 1; also Monday and Thursday from 4 to 6 p.m.

DR. LORENZO BURROWS, JR., of Buffalo, has been appointed ophthalmic examiner for the New York State School for the Blind at Batavia. This is an excellent selection.

DR. CHARLES O. CHESTER, of Buffalo, has removed from 201 to 217 Franklin Street, where he will continue the practice of laryngology.

Death of Dr. Albert L. Gihon, U. S. Navy.

DR. ALBERT LEARY GIHON, Medical Director, (Commodore) retired, died at Roosevelt Hospital of cerebral apoplexy, Sunday morning, November 17, 1902, at the age of 68 years. He never



ALBERT LEARY GIHON, U. S. NAVY.

Courtesy Journal American Medical Association.

recovered consciousness after the initial seizure which occurred on the morning of the previous Thursday, at his rooms at the Hotel Bayard, New York City. He was discovered prone upon the floor, insensible, about 10 a.m., and had made himself nearly ready for breakfast, as it appeared, when the attack overwhelmed him. He was removed soon afterward to the hospital by advice of Dr. Henneberger of the navy and others, who rendered every attention possible until the end came.

Dr. Gihon was born at Philadelphia, September 28, 1833; received his preliminary education at Central High School (A.B.) in that city; doctorate degree at Philadelphia College of Medicine and Surgery, 1852; was professor of chemistry and toxicology in his Alma Mater for two years; received the degree of A.M. from Princeton in 1854; and entered the navy as assistant surgeon May 1, 1855.

His first service was on a receiving ship at the Philadelphia Navy Yard, and then he was ordered to the East India Station; next he was sent to China and was in the engagement in the Pearl River, near Canton, which resulted in the capture of the Barrier forts in November, 1856. After service on various ships he was promoted to passed assistant surgeon May 1, 1860, and was then assigned to duty at the Brooklyn Navy Yard.

The civil war soon came and he was in southern waters on board the brig *Perry* when she captured the Confederate privateer *Savannah*, May 1, 1861. He was promoted to surgeon August 1, 1861, and after a short service at the naval rendezvous, New York, he was sent on special service in European waters, cruising after the Confederate privateers *Alabama*, *Florida* and *Georgia*. He served late in 1864 on the blockade of the coast of South Carolina, and was senior medical officer at Portsmouth Navy Yard from 1865 to 1868. He was aboard the *Idaho* during the great typhoon, which wrecked the ship at Nagasaki, September 21, 1869.

For services rendered the Portuguese colony at Dilly, Island of Timor, and the Portuguese men-of-war, *Príncipe Dom Carlos* and *Sa da Bandiera*, he received from the King of Portugal the decoration of Knight of the Military Order of Christ; also for services to H. B. M. ships *Flint* and *Dawn* he received the thanks of the British Government, and for similar services to the French gunboat *Scorpion*, those of the commander-in-chief of the French East India Station.

After further varied services he was promoted to Medical Inspector, November 7, 1872, and given special duty in the Bureau of Medicine and Surgery, and soon after served on the flagships *Wabash* and *Franklin* as surgeon-of-the-fleet on the European station. He was head of the medical department at the Naval Academy at Annapolis from 1875 to 1880. He designed and superintended the construction of the hospital-ship model, exhibited at the Philadelphia Centennial Exposition, 1876, and presented at the same place the ambulance cot which bears

his name and which was adopted for use in the navy. He was commissioned as medical director August 20, 1879, and subsequently served as such at the naval hospitals at Washington, Mare Island and Brooklyn, and on special duty at New York. He became senior medical director of the navy and attained the rank of Commodore May 1, 1895, after 40 years' service, during which time he had been unemployed only one year and ten months. He was retired from active service under the limitation of age, September 28, 1895, but continued to enjoy his superior physical and mental vigor until stricken with his fatal illness a few days before his death.

After his retirement he continued to represent the medical department of the Navy, as he had done since 1876, in the various prominent National Medical Societies, until recently the privilege was denied him by Surgeon-General Van Ruypen for some unknown reason. He applied to the Surgeon-General for his usual credentials to the recent meeting of the American Public Health Association at Buffalo, and was cruelly told that as he was a permanent member he could attend upon his own account, or words to that effect. He did attend and the week of the meeting he spent in Buffalo was one of the pleasantest periods of his life, as he himself expressed it.

Dr. Gihon was gifted both as a writer and speaker, and these two accomplishments were often the source of much delight to his readers and listeners. He wrote many papers and addresses on naval hygiene, public health, and on questions relating to sanitary reform, of which he had made special study, and upon many other cognate branches of medicine and surgery. In debate he was ready, courteous, able and resourceful,—sometimes even brilliantly entertaining and instructive.

He originated and carried forward to partial success the project to erect a monument at Washington to the memory of Benjamin Rush. A sum of money sufficient to ensure the ultimate success of the proposition in some form is already on deposit.

Dr. Gihon was married April 3, 1860, to Clara Montford Campfield, of Savannah, Ga. Three children, Charlotte, who died June 18, 1885, and Albert Dakin and Clarence Montford, were born of this marriage. The widow and two sons survive. The sons are both artists of prominence among the younger group of Americans at Paris. They were represented by pictures at the Pan-American Art exhibit, and at least one of the paintings has passed into the hands of a Buffalo art connoisseur.

Mrs. Gihon was in Paris on a visit to her sons during the past summer and sailed for home about the time of Dr. Gihon's apoplectic seizure, hence was in ignorance of the sad news that awaited her arrival on American shores. One of the sons, Clarence, in response to a cable followed by the next and a faster steamer, so both arrived about the same time to pay a last tribute to husband and father. It was a sad picture upon which we draw the curtain of seclusion and silence, leaving kinsfolk and near friends alone with the departed.

It was a source of great disappointment to Dr. Gihon's intimate friends that Mr. Cleveland did not appoint him Surgeon-General of the Navy. He was in line of promotion but a junior was given the place.

With all of Dr. Gihon's versatility of accomplishments, one of his chiefest attractions was his amiableness of character. He was of the sunniest of dispositions, a charming companion, a bon vivant in its best sense, a man of brilliant talents, without stain or blot or blemish of spirit, simple in manner, great in soul, and sweet in temper. Farewell, good friend. *Requiescat in pace!*

OBITUARY NOTES.

DR. DWIGHT WASHINGTON DAY, of Eau Claire, Wis., U. of B. '61, died November 19, 1901, at the age of 60 years. He was seized with apoplexy while reading a paper before the Interstate Medical Society. Dr. Day was one of the leading physicians in his section of Wisconsin. He was a native of Eagle, Wyoming Co., N. Y., and served as assistant surgeon in the 154th N. Y. Volunteers during the civil war.

DR. JARVIS S. WIGHT, of Brooklyn, died at his home November 17, 1901, at the age of 67 years. He was born in Centerville, Allegany County, N. Y., in 1834, and was a descendant of Thomas Wight, who emigrated from the Isle of Wight to America in 1635. After being graduated from Tufts College in 1861, he studied at the College of Physicians and Surgeons, New York, and at the Long Island College Hospital, where he received his degree in 1864. For a year he served as an assistant surgeon to the volunteers in the civil war, and at its close became dispens-

ing surgeon to the Long Island College Hospital, lecturer on skin diseases, professor of materia medica and principles and practice of surgery, and professor of operative and clinical surgery, a position which he held up to the time of his death. For many years he was the registrar of the college. He was consulting surgeon at St. Mary's Hospital, and at the Eastern District Hospital. Dr. Wight was a member of several local, state, and national medical societies.

SOCIETY MEETINGS.

THE Buffalo Academy of Medicine held meetings during the months of October and November, 1901, as follows:

Section on Obstetrics.—Tuesday evening, October 29. Program: Concerning the diagnosis and treatment of the various forms of septic pelvic diseases, Fernand Henrotin, Professor of gynecology, Chicago Medical College.

Section on Surgery.—Tuesday evening November 5. Program: The etiology of obstruction of the bowel, with report of cases, Eugene A. Smith.

Section on Medicine.—Tuesday evening, November 12. Program: Some facts and fallacies concerning pulmonary tuberculosis, John H. Pryor; discussion by De Lancey Rochester and H. U. Williams.

Stated Meeting.—Monday evening, November 18. Program: The operation for extraction of cataract, as originally devised by Daviel. Report of case of exophthalmic goitre, with the exophthalmos limited to left eye, A. A. Hubtoll.

Section on Pathology.—Tuesday evening, November 19. Program: The unveiling of the cell, Lewellyn F. Barker, professor of anatomy, University of Chicago.

Section on Obstetrics.—Tuesday evening, November 26. Program: Pelvic lesions in relation to their distinctive effects upon mental disturbances, A. T. Hobbs, London, Ont.

Reproduction of original work done in microscopic embryology, accompanied by remarks on heredity. Illustrated by stereopticon. Adele A. Gleason.

THE Southern Surgical and Gynecological Association held its 14th annual meeting at Richmond, Va., November 12, 13 and 14,

1901. It was well attended and the meeting was spirited. The social entertainments were of the best order. A reception was given on the evening of the first day by Dr. Hugh M. Taylor at his home, which was a delightfully appointed social function. The house was crowded to the doors with members and guests. At Dr. George Ben Johnston's luncheon, given at his residence Wednesday, it was quite the same; and at the reception given by Dr. Lewis C. Bosher at the Westmoreland Club, Wednesday evening, besides all the other delights, Polk Miller gave one of his unique and fun-provoking musical monologues relating to old plantation life. Besides these the luncheons on Tuesday and Thursday at Mrs. John L. Eubank's, at which the Doctors Williams were hosts, were most charming appointments.

Dr. William E. B. Davis, of Birmingham, was chosen president and the next meeting of the association will be held at Cincinnati.

THE Niagara Falls Academy of Medicine held its regular monthly meeting on Monday evening, November 4, 1901, at the residence of Dr. C. G. Leo-Wolf. A paper was read by Dr. C. E. Campbell, entitled, The correlation of life and death.

THE first medical congress to be held in Egypt will occur from December 10-14, 1902, under the patronage of the Khedive, at Cairo, and be devoted to three diseases of peculiar interest to the Egyptians. This is a most commendable undertaking and shows a spirit of progress which will not fail to be appreciated by the civilised nations of Europe and America. It may also be the means of stimulating further research into the causes and prophylaxis of many of the diseases which continually harass the inhabitants of the dean of nations, and may result in some concerted action looking to their complete suppression. Officers: Honorary presidents of the congress, Drs. Abbate Pacha, Pinching, and Ruffer; president of congress, Dr. Ibrahim Pacha Hassan; secretary-general of congress, Dr. Voronoff; sections: Science of medicine, Dr. Comanos Pacha, president; science of surgery, Dr. H. Milton; ophthalmology, Dr. Mohamed Bey Eloui.

THE Medical Society of the County of Chautauqua, will hold its semi-annual meeting at Jamestown on the second Tuesday in December, 1901, at which Dr. J. Henry Dowd, of Buffalo, will read a paper on, Tuberculosis of the Genito-urinary Tract.

HOSPITAL NOTE.

THE New York Orthopedic Dispensary and Hospital, No. 126 East 59th Street, New York, announces that the Surgeon-in-chief, Dr. Russell A. Hibbs, will give a course of clinical lectures on orthopedic surgery at the institution, on Monday and Thursday afternoons, at five o'clock, from December 2 to January 2 (both inclusive). The course will be free to the medical profession and students.

BOOK REVIEWS.

THE READY REFERENCE HANDBOOK OF SKIN DISEASES. By GEORGE THOMAS JACKSON, M. D., Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. New (4th) edition, thoroughly revised. In one 12mo volume of 617 pages, with 82 engravings and 3 colored plates. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$2.75 net]

The prompt appearance of the fourth edition of this work, first published in 1892, is very strong testimony to its excellence and value. Dr. Jackson makes no attempt to conform to conventional classifications, but continues to arrange his subjects alphabetically, which is certainly more convenient for quick reference and calculated to avoid confusion in the mind of the enquirer. The author's power to describe a disease in a few short, clear sentences is probably unrivaled. We know of no easier inroad into the general subject of dermatology than is furnished by this admirable book. The author most sensibly avoids the prolix discussion of mere theories, and says in forcible words all that is really necessary to give the reader a firm grasp upon the subject treated.

New sections have been added to the work which are important, since they make the general subject clearer, although, in order to save space, the author has omitted a considerable portion of the old text. This may be an improvement in some respects; it is otherwise so far as the pronunciation is concerned, which was a great help to students. Among the new illustrations we most especially commend the one furnished by Dr. Hubbard relating to smallpox and representing the stages of maturation and umbilication present in lesions so large, the condition usually asserting itself during the stage of vesiculation.

The work, as a whole, as the present writer takes occasion to say for the fourth time, is one of the best and most useful of its class. We hope to see another edition hereafter, containing all the old and new matter in combination. Beyond this, nothing could be asked.

G. W. W.

TRANSACTIONS of the American Dermatological Association at the Twenty-fourth Annual Meeting, held in Washington, D. C., May 1, 2 and 3, 1900, in connection with the Fifth Triennial Session of the Congress of American Physicians and Surgeons. Official Report of the Proceedings, by FRANK HUGH MONTGOMERY, Secretary. Chicago: P. F. Pettibone. 1901.

The American Dermatological Association may be proud of the work done at the session which was held in connection with the fifth Triennial Congress of American Physicians and Surgeons. The proceedings form a welcome addition to dermatological literature and plainly show the progress made by American physicians in this special branch of medicine.

The work consists of 232 pages and contains numerous illustrations, including reproductions of histological preparations. It is, of course, impossible to review in detail the papers and subsequent discussions. In the annual address made by the president, Dr. Stelwagon, he formulated a plea for greater attention upon the part of the dermatologist to bacteriology, which seems to be practically useless on account of the easy contamination. It is well known that, in a bacteriological sense, we can find almost anything we look for in the skin. Dr. Stelwagon, however, made a statement which should be recognised as important by every university,—that dermatology should have a far more prominent place in the medical curriculum, and that each large hospital should devote a special ward to the treatment of skin diseases. Another paper of interest was by Dr. Corlett, upon The frequency of parasitic diseases of the skin, and measures advisable for limiting their spread, in which he recommends, as a preventative to ringworm, that there should be medical inspectors for schools who should inspect the children regularly and isolate the child infected to a place where its education may be continued without loss of time. He also considers that barber-shops should be under the supervision of the Board of Health and that it should be illegal for a barber to use the same brush, sponge, towel or instrument on different persons without first well caring for them.

The general character of the papers was elevated and the numerous drawings and photographs presented for inspection were unusually excellent. As a whole, the session reported in the volume was one of remarkable interest and advantage.

G. W. W.

A GUIDE TO THE CLINICAL EXAMINATION OF THE BLOOD FOR DIAGNOSTIC PURPOSES. By RICHARD C. CABOT, M. D. With colored plates and engravings. Fourth revised edition. Octavo, pp. 515. New York: William Wood & Company. 1901.

When the first edition of this book appeared, four years ago, it was the only one of its kind in English. Hematology was then a new subject, the value of systematic blood examinations just beginning to be understood. Now in many cases blood examination is an essential, and with the simplification in method which time and thought have brought about, a knowledge of certain conditions may be determined as easily as the estimation of urea in urine and should be done as often.

The fourth edition has been almost entirely rewritten. Many changes appear, most noticeably in the chapters on typhoid fever, leukemia and diseases due to animal parasites.

The author has quoted freely from all recognised authorities on diseases of the blood, yet in the main the book is based on observations in the Massachusetts General Hospital, 12,000 in all.

A hematologist may perhaps be critical in discussing this work. A general practitioner interested in practical blood examinations as they bear upon medical and surgical cases, finds it most satisfactory. M. J. F.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by HENRY W. CATTELL, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume II. Eleventh series. Philadelphia: J. B. Lippincott Company. 1901. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

The contents of this volume relate to therapeutics, medicine, neurology, surgery, obstetrics and gynecology, pediatrics, pathology, diseases of the eye and laryngology, besides an article relating to the pronunciation and definition of some of the newer medical words, the latter written by W. A. Newman Dorland. The contributors of prominence are J. W. Ballantyne, A. Broca, Alfred Fournier, Santiago Ramon y Cajal, John Griffith, Robert Jardine, and Dr. Wlaeff, from abroad; and A. Blackader, John B. Deaver, M. Allen Starr, Henry Sewall, Ludvig Hektoen, and James Tyson, from this country and Canada. The article by Jay F. Schamberg, of Philadelphia, on smallpox is to be particularly commended, and it is fully illustrated by photographs, showing the eruptions in different stages. This volume as a whole is deserving of approbation.

A HANDBOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS. Including the physiological action of drugs, the special therapeutics of disease, official and practical pharmacy and minute directions for prescription writing. By SAMUEL O. L. POTTER, A. M., M. D., M. R. C. P., Lond., formerly professor of the principles and practice of medicine in the Cooper Medical College of San Francisco; Author of the "Quiz Compend of anatomy and materia medica," etc.; late Major and Brigade-Surgeon of Volunteers, U. S. Army. Octavo, pp. 950. Eighth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$5.00.]

This work has been too long before the medical profession and too many editions have been published, to admit even of a hint that it is not occupying a place of prominence in the minds of teachers and physicians or in their libraries.

The author says he began this revision at Manila while serving as attending surgeon there at the headquarters of the Eighth Army Corps, and that it contains information gathered at the Philippines. Other new material has been added, while that

which became obsolete or unimportant has been omitted, thus retaining the book at or near its original size.

It is made convenient for references by a thumb index to the several divisions of the volume, and cannot fail to receive the continued favor of teachers, undergraduates and practising physicians.

SYPHILIS: ITS DIAGNOSIS AND TREATMENT. By WILLIAM S. GOTTHEIL, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the West-Side German Dispensary, etc. Profusely illustrated. Pages 216. Chicago: G. P. Engelhard & Company. 1901. [Price, \$1.00 net.]

Dr. Gottheil has brought out a book of 216 pages carrying the above title. The work deals only with well-recognised facts concerning the evolution, course and treatment of the disease, beginning with a historical introduction. There is so little said in each chapter about the particular feature discussed that the general practitioner may, at times, find himself bewildered instead of assisted. The portion specially devoted to treatment is likely to serve him best. It is fair to say, however, that it would be utterly impossible to treat so fruitful a subject in the limited space here devoted to it. The photographic reproductions, which number twenty-eight, compose the most valuable feature of the work, being unusually strong and striking. The utility of such pictures cannot be overestimated.

The presswork and binding have been well executed: however, from the general appearance of the work, it may easily be mistaken for a modern novelette. G. W. W.

MEMORANDA OF POISONS. By THOMAS HAWKES TANNER, M. D., F. L. S. Eighth revised edition, by Henry Leffmann, A. M., M. D., Professor of Chemistry in the Woman's Medical College of Pennsylvania, etc. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, 75 cents.]

It is well for every physician to have at hand a concise list of poisons with absolute treatment for the same, which is precisely what this little volume furnishes. Tanner has long been recognised as authority on the subject, and has revised this edition down to the present time. It should be kept always within easy reach for the emergency which may arise unexpectedly in the practice of any physician.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE NOSE, THROAT, NASOPHARYNX AND TRACHEA. For the use of students and practitioners. By CORNELIUS G. COAKLEY, M. D., professor of laryngology in the University and Bellevue Hospital Medical College, New York. New (2d) edition. In one handsome 12mo volume of 556 pages with 103 engravings and 4 colored plates. Philadelphia and New York: Lea Brothers & Co. 1901. [Cloth, \$2.75 net.]

Coakley sprang into prominence as a careful teacher and reliable author, with the issuance of the first edition of this manual. It stamped him with both identity marks at once and a second edition has been called for unusually soon,—a surprise almost to the publishers, if not to the author. In noticing in

these columns the first edition we predicted success to the book, but we were not quite prepared to note it so soon. However, that may be fortunate for both reader and author, for it insures a complete revision in a department of medicine where the changes are or have been rapid, making prompt revision necessary to keep pace with advances. The author has done this work most thoroughly, and added a new chapter on the affections of the upper air tract in the infectious diseases. We feel sure that this edition will be taken up even more promptly than the first one.

RETINOSCOPY. In the determination of refraction at one meter distance with the plane mirror. By JAMES THORINGTON, A. M., M. D., Author of "Refraction and How to Refract;" professor of diseases of the eye in the Philadelphia Polyclinic and College for Graduates in Medicine. Duodecimo, pp. 89; 51 illustrations, 12 of which are colored. Fourth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$1.00.]

The usefulness of this work is well attested by the demand for repeated editions and its translation into French and German. Thorington long has been recognised as authority on refraction and was among the first to give out in clearly written English, complete instruction as to the application of retinoscopy to refractive work. We think he has chosen the title well,—Retinoscopy. It is better than most of the other terms used to express this method of estimating the refraction, because it tells just what is done—namely, that the retina in its relative position to the dioptric media is being studied. In the preparation of this edition the author has carefully reëxamined the whole subject, made additions where necessary and inserted eight new illustrations, thus bringing it abreast of the period in its observations and teachings.

HANDBOOK ON SANITATION. A manual of theoretical and practical sanitation. For students and physicians; for health, sanitary, tenement-house, plumbing, factory, food and other inspectors; as well as for candidates for all municipal sanitary positions. By GEORGE M. PRICE, M. D., Medical Sanitary Inspector, Department of Health, New York City; Inspector New York Sanitary Aid Society of the 10th Ward, 1885; Manager Model Tenement-houses of the New York Tenement-house Building Company, 1888; Inspector New York State Tenement-house Commission, 1895. Duodecimo, pp. 329. Illustrated. New York: John Wiley & Sons. 1901. [Price, 1.50 net.]

Dr. Price has written a book the aim of which is to present to the student and physician, and more especially to the present or prospective sanitary inspector, the essentials of sanitation. There is, we believe, no other work of its kind published in this country. The first part of the volume is devoted to the principles of sanitation; the second section to the practice thereof. How practically the writer deals with this part of the topic may be gathered from such chapter headings as The tenement house problem; Sweat-shops; The smoke nuisance; Bakeries, etc. The concluding division is devoted to sanitary law.

The book is dedicated to Jacob A. Riis.

M. J. F.

LECTURES ON NASAL OBSTRUCTION. By A. MARMADUKE SHIELD, M. B. (Camb.), F. R. C. S. (Eng.), Surgeon to St George's Hospital, London, and Surgeon in Charge of the Throat Department, etc. Duodecimo, illustrated. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$1.50.]

These lectures, if read by the general physicians of the country, would prove of vast benefit to the public at large, for they teach the doctrines of scientific though conservative rhinology. The title of the first lecture is, the causes and diagnosis of the principal varieties of nasal obstructions; of the second, the treatment of nasal obstruction; and of the third, the treatment of nasal polypi. These are practical every-day questions that are presented to physicians, and the author deals with them masterfully, though differing in some respects from the usual methods taught in the clinics and text-books. The conditions treated of are so common and withal so annoying, that this separate monograph is especially timely, and we hope it will receive the careful study of specialist, as well as the generalist, for which latter it seems to have been particularly intended.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD. With chapters on the diet and general management of children, and massage in pediatrics. By LOUIS STARR, M. D., late clinical professor of diseases of children in the Hospital of the University of Pennsylvania: consulting pediatricist to the Maternity Hospital, Philadelphia, etc. Third edition, rewritten and enlarged. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$3.00 net.]

In the ten years that have elapsed since the second edition of this book appeared, the changes in regard to many matters relating to pediatrics have been so great as to render the older volume almost obsolete. The present edition is therefore entirely rewritten. The first 100 pages are devoted to the general management of the child,—information of a kind more often presented to nurses and mothers than to physicians, but most valuable to the young practitioner. Then follow chapters on scurvy, rickets, and the various diseases of the digestive organs. The author's wide clinical experience forms the basis upon which the book is constructed and gives it a real value to the physician and pediatricist.

The book is handsomely printed and bound. M. J. F.

THE PHYSICIAN'S VISITING LIST FOR 1902. Fifty-first year of its publication. Philadelphia: P. Blakiston's Son & Co.

Although this is the oldest visiting list in the market, it has kept progress with the years, and contains all that the busy physician needs as a reminder in his every day work. The regular edition is published in five varieties containing record space for from 25 to 100 patients a week, and varying in price from \$1.00 to \$2.25, according to size. There is also a perpetual edition, which can be commenced at any time and used until full; also a monthly edition in which the patient's name need be written but once a month and the whole account may be kept in one place. Each contains the various tables that are so useful for ready

reference, and the book is so compact as to take but a minimum of pocket space.

3500 QUESTIONS ON MEDICAL SUBJECTS. Arranged for self-examination With the proper references to standard works in which the correct replies will be found. Third edition, enlarged. With questions of the state examining boards of New York, Pennsylvania and Illinois. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, 10 cents.]

These questions have been selected by a medical teacher and writer of experience, with a particular regard for the wants of medical students. The very fact that the previous editions have been exhausted indicates that the book is wanted. This edition has been revised, considerably enlarged, and questions added from the examining boards of several of the larger states.

THE DISEASES OF THE RESPIRATORY ORGANS, ACUTE AND CHRONIC. By WILLIAM F. WAUGH, A. M., M. D., Professor of Practice and Clinical Medicine, Illinois Medical College, etc. Pages 221. Chicago: G. P. Engelhard & Company. 1901. [Price, \$1.00, net.]

The influence of such books as this is, to state the case conservatively, of doubtful import. It contains many suggestions of value, but only such as are found in other published works. The trend of its therapeutic teaching is toward the infinitesimal, and it appears to have been written with a view to further the sale of alkaloidal tablets.

THE MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY FOR 1902. New revised edition. New York: William Wood & Company, Medical Publishers.

This well-known visiting-list is out in its usual good form and presents features that appeal to the family doctor. The contents are well arranged and could not easily be improved upon, embracing as they do practically everything that a physician need carry in his pocket for reference. The regular styles are arranged for 30 and 60 patients a week at \$1.25 and \$1.50 each. There are three novelties, bound in genuine seal and calfskin, in two volumes, removable wallets, with and without flap. These vary in price from \$2.50 to \$4.00, according to quality. Names and addresses will be stamped on books at from 25 to 50 cents extra. Postage or express charges will be paid by the publishers. Orders should be placed with promptitude that they may be filled by the beginning of the new year.

THE PHYSICIAN'S POCKET ACCOUNT BOOK. Consisting of a manila-bound book of 208 pages and a leather case. By J. J. TAYLOR, M. D. Philadelphia: Published by The Medical Council, Twelfth and Walnut Streets. [Price, \$1.00, complete; subsequent books to fill the case, 40 cents each, or three for \$1.00.]

This book offers a unique system for keeping physicians' accounts, enabling the doctor to have his business office in his pocket. It is arranged in such a manner as to be admissible in court whenever it becomes necessary to prove the charges according to law. Its many features are ingeniously as well as practi-

cally arranged, and this new system of book-keeping makes appeal to such physicians as do not employ an accountant or secretary to attend to the business part of their offices. Especially does it seem to us that the system is adapted to the needs of the country physician, who through its means can always carry with him the information necessary to effect a prompt settlement of accounts when miles away from his office.

THE MEDICAL NEWS VISITING LIST FOR 1902 Weekly (dated, for 30 patients); monthly (undated, for 120 patients per month); perpetual (undated, for 30 patients weekly per year); and perpetual (undated, for 60 patients weekly per year) Each style in one wallet-shaped book, with pocket, pencil and rubber. Philadelphia and New York: Lea Brothers & Co., Publishers. [Price, seal grain leather, \$1 25; thumb-letter index, 25 cents extra.]

A visiting list is a great time-saver for a busy doctor, and has become well-nigh indispensable to the successful conduct of his practice. The book before us is one of the very best lists published and contains all that a professional pocket-book need embrace to make it of the highest usefulness. The first three styles mentioned above contain 32 pages of data and 160 pages of blanks. The 60 patient, perpetual style, contains 236 pages of blanks. Each style is bound in seal grain leather, wallet-shaped, with pencil. The tables are elaborate and contain almost everything necessary to aid in emergencies.

BOOKS RECEIVED.

A Text-Book of Medicine. For students and practitioners. By Dr. Adolf Strümpell, Professor and Director of the Medical Clinique at the University of Erlangen. Third American edition. Translated by permission from the thirteenth German edition, by Herman F. Vickery, A.B., M.D., Instructor in Clinical Medicine, Harvard University, etc., and Philip Coombs Knapp, A. M., M. D., Clinical Instructor in Diseases of the Nervous System, Harvard University, etc. With editorial notes by Frederick C. Shattuck, A. M., M. D., Jackson Professor of Clinical Medicine, Harvard University, etc. Octavo, pp. 1264. 185 illustrations and 1 plate. New York: D. Appleton & Co. 1901. [Price, cloth, \$6.00; leather, \$7.00.]

Transactions of the State Medical Association of Texas. Thirty-third Annual Session, held at Galveston, Texas, April 23, 24, 25 and 26, 1901. H. A. West, M. D., Secretary.

The Practice of Obstetrics. By American authors. Edited by Charles Jewett, M. D., Professor of Obstetrics and Gynecology in Long Island College Hospital, Brooklyn, N. Y. New (2d) edition, revised and enlarged. In one handsome 8vo volume of 775 pages, with 445 engravings in colors and black, and 35 full-page colored plates. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$5.00 net; leather, \$6.00 net; half-morocco, \$6.50 net.]

A Text-Book of Physiological Chemistry. For students of medicine and physicians. By Charles E. Simon, M. D., of Baltimore, Author of "Simon's Clinical Diagnosis," etc. In one 8vo volume of 452 pages. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$3.25 net.]

Anatomy, Descriptive and Surgical. By Henry Gray, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. Thoroughly revised American from the 15th English edition. In one imperial 8vo volume of 1246 pages, with 780 illustrations. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, with illustrations in black, cloth, \$5.50 net; leather, \$6.50 net. Price, with illustrations in colors, cloth, \$6.25 net; leather, \$7.25 net.]

Text Book of Nervous Diseases. Being a compendium for the use of students and practitioners of medicine. By Charles L. Dana, A. M., M. D., Professor of Nervous Diseases in Cornell University Medical College; Visiting Physician to Bellevue Hospital; Neurologist to the Montefiore Hospital. Fifth edition. Octavo, pp. 646. 244 illustrations. New York: William Wood & Co. 1901. [Price, \$3.50.]

A Text-Book on Diseases of the Ear, Nose and Throat. By Charles H. Burnett, M. D., E. Fletcher Ingals, M. D., James E. Newcomb, M. D. Octavo, pp. 734. Illustrated. Philadelphia and London; J. B. Lippincott Co. 1901. [Price, \$5.00.]

A System of Physiologic Therapeutics. A practical exposition of the methods, other than drug-giving, useful in the prevention of disease and in the treatment of the sick. Edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital, etc. Volume III.—Climatology: Health Resorts, Mineral Springs. By F. Parkes Weber, M. A., M. D., F. R. C. P. (Lond.), Physician to the German Hospital, Dalston; Assistant Physician North London Hospital for Consumption, etc. With the collaboration for America of Guy Hinsdale, A. M., M. D., Secretary of the American Climatological Association, etc. In two books. Book I.—Principles of Climatotherapy, Ocean Voyages, Mediterranean, European and British Health Resorts. Book II.—Mineral Springs, Therapeutics, etc. Illustrated with maps. [Price for the complete set, \$22.00 net.]

American Edition of Nothnagel's Encyclopedia. Typhoid and Typhus Fevers. By Dr. H. Curschmann, of Leipzig. Edited, with additions, by William Osler, M. D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome 8vo of 646 pages. Illustrated; including a number of valuable temperature charts and two full-page colored plates. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$5.00 net; sheep or half-morocco, \$6.00 net.]

An American Text-Book of Pathology. Edited by Ludvig Hektoen, M. D., Professor of Pathology, Rush Medical College, Chicago; and David Riesman, M. D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial 8vo of 1245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$7.50; sheep or half-morocco, \$8.50 net.]

A Reference Handbook of the Medical Sciences. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten. Edited by Albert H. Buck, M. D., New York City. Volume III. CHL—E.Q.U. Illustrated by chromo-lithographs and 676 half-tone and wood engravings. Nine volumes, imperial 8vo. New York: William Wood & Co. 1901. [Price, muslin, \$6.00 per volume; leather, \$7.00 per volume; half-morocco, \$8.00 per volume.]

A Treatise on Surgery by American Authors. For students and practitioners of medicine and surgery. Edited by Roswell Park, M. D., Professor of Surgery in the University of Buffalo, N. Y. New (3d) edition. In one royal 8vo volume of 1350 pages, with 692 engravings and 64 full-page plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co. [Cloth, \$7.00 net; leather, \$8.00 net.]

A Text-Book of Surgery. By Dr. Hermann Tellmans, Professor in the University of Leipsic. Translated from the seventh German edition by Benjamin T. Tilton, M. D., and John Rogers, M. D., Instructors in Surgery, Cornell University. Edited by Lewis A. Stimson, M. D., Professor of Surgery, Cornell University. Volume I. The Principles of Surgery and Surgical Pathology. With 516 illustrations. Pp. viii.—841. New York: D. Appleton and Co. 1901.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by Henry W. Cattell, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Mon-

treall; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume III. Eleventh series. Philadelphia: J. B. Lippincott Co. 1901. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

Infant-Feeding in its Relation to Health and Disease. By Louis Fischer, M. D., Visiting Physician to the Willard Parker and Reception Hospitals of New York City, etc. Duodecimo, pp. 351. 52 illustrations, with 23 charts and tables, mostly original. Second edition. Philadelphia: F. A. Davis Co. 1901.

The Standard Medical Manual. A Handbook of Practical Medicine. By Alfred S. Burdick, M. D., Junior Professor of Practice of Medicine, Illinois Medical College; Member of the American Medical Association, the Illinois State Medical Society, etc. Pages, 921. Illustrated. Chicago: G. P. Engelhard & Co. [Price, cloth, \$4.00.]

A Treatise on the Acute, Infectious Exanthemata. Including Variola, Rubella, Scarlatina, Rubella, Varicella and Vaccinia, with especial reference to Diagnosis and Treatment. By William Thomas Corlett, M. D., L. R. C. P., Lond., Professor of Dermatology and Syphilology in Western Reserve University; Physician for Diseases of the Skin to Lakeside Hospital; Consulting Dermatologist to Charity Hospital, St Alexis Hospital and the City Hospital, Cleveland; Member of the American Dermatological Association and the Dermatological Society of Great Britain and Ireland. Illustrated by 12 colored plates, 28 half-tone plates from life, and 2 engravings. Pp. viii.—392. Sold only by subscription. Philadelphia: F. A. Davis Co. 1901. [Price, cloth, \$4.00 net, delivered.]

A Text-Book of Pharmacology. Including Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc. By Torald Sollmann, M. D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio. Royal 8vo volume of 880 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$3.75 net.]

A Laboratory Handbook of Physiologic Chemistry and Urine-examination. By Charles G. L. Wolf, M. D., Instructor in Physiologic Chemistry, Cornell University Medical College, New York. Duodecimo volume of 190 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.25 net.]

Saunders's Medical Hand-Atlases. Atlas and Epitome of Bacteriology. A Text-Book of Special Bacteriologic Diagnosis. By Professor Dr. K. B. Lehmann, Director of the Hygienic Institute in Würzburg; and R. O. Neumann, Dr. Phil. and Med., Assistant in the Hygienic Institute in Würzburg. From the second enlarged and revised German edition. Edited by George H. Weaver, M. D., Assistant Professor of Pathology, Rush Medical College, Chicago. In two volumes. Part I., consisting of 632 colored figures on 69 lithographic plates. Part II., consisting of 511 pages of text, illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$5.00 net.]

Libertinism and Marriage. By Dr. Louis Jullien (Paris), Surgeon of Saint-Lazare Prison; Laureate of the Institute, of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglas. Pp. v.—169. Philadelphia: F. A. Davis Co. 1901. [Price, cloth, \$1.00 net.]

Diseases of the Intestines. Their Special Pathology, Diagnosis and Treatment. With sections on anatomy and physiology, microscopic and chemic examination of the intestinal contents, secretions, feces and urine. Intestinal bacteria and parasites; surgery of the intestines; dietetics; diseases of the rectum, etc. By John C. Hemmeter, M. D., Philos. D., Professor in the Medical Department of the University of Maryland; Consultant to the University and Director of the Clinical Laboratory, etc. In two volumes. Volume I. Anatomy, Physiology, Intestinal Bacteria, Methods of Diagnosis, Therapy and Materia Medica of Intestinal Diseases, Diarrhea, Constipation, Enteralgia and Enterodinia, Meteorism, Dystrophia, Enteritis, Colitis, Dysentery, Intestinal Ulcers, Intestinal Neoplasms, etc. With many original illustrations, some of which are in colors. Large 8vo, 740 pages. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$5.00 per volume.]

The Surgical Treatment of Disfigurements and Deformities of the Face. By John B. Roberts, A. M., M. D., Professor of Surgery in the Philadelphia Polyclinic; Surgeon to the Methodist Hospital. Duodecimo, pp. 72. Second edition, with a chapter on the Reconstruction of Syphilitic Noses. Sixty-two figures. Philadelphia: The Philadelphia Medical Publishing Co. 1901.

LITERARY NOTES.

THE *American Journal of the Medical Sciences*, so long recognised as the leading monthly medical magazine in this country, has enlarged its space allotted to original communications, so that its November, 1901, issue contained double that usually set apart for the department referred to. The enlargement will be permanent. This magazine, always noted for its high-class original articles, abstracts, and reviews, will continue its energies in these directions, aiming in the future, as in the past, to stand in the front rank of medical periodicals.

W. B. SAUNDERS & Co., publishers, Philadelphia, announce the publication of Nothnagel's Encyclopedia of practical medicine, edited by Dr. Alfred Stengel, professor of clinical medicine in the University of Pennsylvania. The set will consist of ten or twelve volumes, translated by competent men who know English and German thoroughly, and who are acquainted with the subjects which they translate. Five or six volumes will appear during 1902 and the remainder soon afterward.

The usual method of publishers, when issuing a work of this kind, has been to compel physicians to take the entire system. This seems to us in many cases to be undesirable. Therefore, in purchasing this encyclopedia, physicians will be given the opportunity of subscribing for the entire system at one time; but any single volume or any number of volumes may be obtained by those who do not desire the complete series. This latter method, while not so profitable to the publisher, offers to the purchaser many advantages which will be appreciated by those who do not care to subscribe for the entire work at one time.

This American edition of Nothnagel's Encyclopedia will, without question, form one of the greatest systems of medicine ever produced, and the publishers feel confident that it will meet with general favor in the medical profession.

MISCELLANY.

PRIZE FOR ORIGINAL RESEARCH IN EPILEPSY.—Dr. Frederick Peterson, New York State Commissioner of Lunacy, has offered a prize of \$200 for the best original unpublished contribution to the pathology and treatment of epilepsy. All manuscript should be submitted in English, and the prize is open to universal competition. Each essay must be accompanied by a sealed envelope, containing the name and address of the author and

bearing upon the outside a motto or device, which is to be inscribed also upon the essay. All papers received will be submitted to a committee, consisting of three members of the New York Neurological Society, and the award will be made upon its recommendation at the annual meeting of the board of managers of the Craig Colony, October 14, 1902. Manuscripts should be sent to Dr. Frederick Peterson, 4 West Fiftieth Street, New York, on or before September 30, 1902. The successful essay becomes the property of the Craig Colony and will be published in its medical reports.

ITEMS.

PROF. H. SCHWEITZER, formerly professor of chemistry in the University of Heidelberg, recently visited Detroit in relation to a legal controversy growing out of counterfeiting the trade-marks owned by Farbenfabriken of Elberfeld Co. charged against some men in Detroit. During his visit Prof. Schweitzer visited the establishment of Parke, Davis & Co., and according to the *Detroit Journal* remarked that it is the greatest industry of the kind in the world, the greatest beyond all question. The biological department is astounding. The physical assay work on animals is worth to a student a walk of 1,000 miles. The scientific atmosphere is an inspiration and the ingenious machinery a marvel. I was told that there were employed in the factory alone over 1,500 people, and that the firm has 207 traveling men employed.

There are five American branches, I was told, and there are manufacturing plants in England and Canada. In the English plant are employed 250 persons. There is nothing wanting in this plant for the production of powerful, accurate, uniform and palatable medication. They have a circulating library for the employees, as well as an emergency hospital, and I understand the employees have decent hours and are well treated.

A HANDSOME GROUP OF PORTRAITS.—About a year ago, within the short period of three weeks, four eminent and distinguished physicians departed this life. Two of these well known men, Hunter McGuire and Lewis A. Sayre, were surgeons and two, Jacob M. DaCosta and Alfred L. Stillé, physicians, and three of them were former presidents of the American Medical Association. Believing that the rank and file of the profession would appreciate and preserve portraits of these representative practitioners and teachers, the Arlington Chemical Company commissioned a competent artist to paint them in oil in the shape of a panel suitable for framing, and have reproduced the painting for distribution to their friends in the profession. This handsome and thoroughly worthy group of portraits is now being mailed and if any physician is, perchance, omitted from the list, a request will bring a copy.

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No. 6.

ORIGINAL COMMUNICATIONS.

Exophthalmic Goitre; its Etiology, Symptoms and Treatment.¹

By CASEY A. WOOD, M. D., Chicago, Ills.,

Professor of Clinical Ophthalmology in the University of Illinois.

I HAVE employed the term exophthalmic goitre because I do not believe that one can use the expression, "Graves's" or "Basedow's disease," without doing injustice to the memory of an Englishman, C. H. Parry, who intelligently observed and described this symptom-complex in 1786, although his writings were not published until 1825, some fifteen years before Basedow's first article appeared in Casper's *Wochenschrift für die gesammte Heilkunde*. The publication of Parry's observations also antedates Graves's description of the disease contained in his famous lectures contributed to the London *Medical and Surgical Journal* for 1835. So far as priority of publication is concerned, probably both Basedow and Graves are put out of court by the superior claims of the Italian, Giuseppe Flajani. In his *Collezione d' osservazioni e riflessioni di Chirurgia*, published in four volumes at Rome in 1802, a fairly accurate account is given of an example of this curious affection,—although we do not know that he appreciated the correct symptoms of the disease.

In some Italian works, also, reference is made to *il morbo di Flajani*, although in recent years the term *gozzo esoftalmico* or *il morbo di Basedow* is employed. I would refer those interested in the matter to the article on *Goitre Exophthalmique* in Dechambre's *Dictionnaire Encyclopédique*, and to the introduction to Möbius' *Die Basedow'sche Krankheit*. In any event, and for obvious reasons, the expression "exophthalmic goitre" is to be preferred until, at least, we can agree upon or

1. Read by invitation before the Buffalo Academy of Medicine, October 14, 1901.

have learned more than we now know about the pathology of this interesting array of signs and symptoms.

That exophthalmic goitre is the result of a systemic poisoning, produced by deranged function of the thyroid gland, there can be but little doubt. The chief difficulties in the way of a satisfactory study of the disease arise, when we endeavor to explain just how such functional derangement occurs and what is the character of the leucomaines, or the products that directly bring about the toxic symptoms. The discussion of the pathology of this form of goitre, involving as it does the whole question of toxemia, as well as the probable function of the thyroid, is one of peculiar interest, but time will hardly permit of it this evening; suffice it to say, that notwithstanding the defects in the "hyper-" and "dysthyroidation" theory it is the one that to the present time explains most of the facts. Moreover, it is well known that the administration of thyroid extract increases the violence of many of the symptoms and that, speaking generally, such treatment as reduces the mass of the enlarged gland, or the volume of its secretion, exerts a favorable influence on the other manifestations of the disease. Notthaft and others have reported cases in which overdoses of thyroidin brought on cardiac palpitation, marked sweating, difficult breathing, exophthalmus, fast pulse, tremor, as well as most of the eye signs of this affection. When we also recollect that myxedema, the clinical antipodes of exophthalmic goitre, is associated with atrophy and lost function of the thyroid, only one conclusion seems possible.

It may well be objected to the foregoing statement that no light is thrown upon the cause of this depraved action of the thyroid, and we are constantly obliged to consider those hypotheses that represent the disease as essentially a lesion of the cervical sympathetic,—a view of the case that, once rejected, has lately been revived in the treatment of exophthalmic goitre by the removal of the cervical ganglia. It was, as you know, at one time held that strumous or other lesion of the great sympathetic and subsequent paralysis of its vasomotor nerves are competent to produce the goitre and the exophthalmus, together with the dilatation and pulsation of the carotid and other arteries. At the same time this alteration is expected to account for the tachycardia, by permanent irritation of the cardiac excito-motor nerves that also run to the cervical sympathetic. Such a double-headed hypothesis, whose two chief factors seem mutually

exclusive, has never, so far as I know, been elevated to the dignity of a theory either by evidence derived from experiments on the lower animals or by clinical observations of patients where paralysis of the nerve has occurred. Again, the pupillary reactions in Graves's disease are usually normal when they would inevitably be disturbed in disease of the sympathetic.

These difficulties led Prof. Sattler (then of Erlangen now of Leipzig) to advance a theory that to some extent removes them. He postulates a lesion of that portion of the central vasomotor neuron that presides over the vasomotor nerves of the thyroid, and of the post-ocular tissues within the orbit as well as an alteration in the cardio-inhibitory center of the pneumogastric. In further support of Sattler's theory, Fitzgerald in 1883 pointed out that many cases of exophthalmic goitre are complicated with symptoms clearly cerebral, as for instance, glycosuria, paresis of the external recti muscles and paralysis of the associated movements of the globe. The chief objection, to my mind, that resides in the Sattler theory is that beyond Filehne's experiments on the restiform bodies (when division of these produced impaired function of the vagus, exophthalmus and vasomotor paresis in the ears, thyroid and anterior part of the neck) there are no post mortem findings to support it. Furthermore, it is necessary to suppose several circumscribed, isolated, invariable and unrelated lesions which are without our experience in practical pathology.

The statement that acute iodism and exophthalmic goitre are practically the same condition has received the sanction of several observers. Jaunin and G. Gautier, both writing in the *Révue médicale de la Suisse Romaine* for 1899, describe cases in which the exhibition of iodine in considerable doses brought on all the symptoms of Graves's disease, except the marked proptosis.

The *exciting causes*, also, can have only a passing mention. Of some eleven cases observed, more or less closely by me, two only were in men,—one of twenty-four, the other twenty-two years of age. All the others were women of from nineteen to thirty-three years old. Graves' disease is in that sense a "female" affection. There can be no doubt but that anemia and chlorosis are often present. Overwork, worry, fright, catching cold (thereby bringing on an acute or chronic thyroiditis) great mental excitement, excessive venery, insomnia, as well as many other causes have been assigned by both physician and patient

for the diseased manifestations. Owing to the preference of exophthalmic goitre for women it has been supposed, in some way or other, to depend on alterations in function or organic changes in one or other of the reproductive organs, just as its connection with nasal disease, with the so-called "strumous" condition, with floating kidney, disease of the bladder, etc., has been noted.

Apart from the eye symptoms let me remind you of the hypertrophy and degeneration of the thyroid gland, of the palpitation of the heart, (usually the first of the cardinal symptoms to appear and the most constant of them all), its irregularity, its occasional enlargement, the occurrence of systolic murmurs of the anemic type, the pulsation of the enlarged arteries,—particularly in the carotids in the neck and the abdominal aorta (occurring with the tachycardial), the weak and soft radial pulse and the pulsation and enlargement of the spleen, noticed by C. Gerhardt. As a continuation of this catalogue I may mention the extreme nervousness, often bordering on and sometimes complicated with hysteria, the fine tremor or tremulousness, the insomnia, the vertigo, the paresthesiæ, as well as the muscular cramps and the various pareses. Other skin symptoms are (Vigorous's sign) the diminished electric skin resistance, the various dermal eruptions and the sweating,—the last often alternating with extreme dryness.

I may perhaps be allowed here to speak of a symptom that I have noticed, once only, in a patient with exophthalmic goitre, whom I saw some fifteen years ago. I refer to a peculiar form of fetid night sweats. I spoke of it at that time to Prof. Sattler because I had been unable to find any mention of it in the literature then at my command. The patient, one of the two men whom I have seen with the disease, had attacks of the most foul smelling diaphoresis I have ever experienced and they persisted as long as I attended him, requiring disinfectant sponge baths for their relief. Sattler had not seen such a case; you may imagine my satisfaction, therefore at finding several years afterwards that Basedow himself mentions an example of it.

Next in order comes swelling of other glands besides the thyroid lymph glands, the spleen, the thymus, often appearing with tumefaction and other affections of the joints. We also notice the dry cough, the weakness of the voice, the difficulty of breathing and the occurrence of Bryson's sign (defective expansion of the chest in respiration), disorders of digestion with

emaciation and micturition (with glycosuria), so well described by Charcot. Probably the diarrhea, vomiting, urination, and the like, are the direct efforts of nature to get rid of the thyroid poison.

I would not have you suppose that in claiming much of value for the eye symptoms, I am impelled to do so mainly because of my studies as an ophthalmologist. I think you will agree with me that the profession has not yet recovered from the impression early given it, that ocular symptoms are matters of deep mystery not to be penetrated except in case of the direst need. As a matter of fact the ophthalmic manifestations of Basedow's disease are valuable because of their easy detection and because of the fact that one or more of them invariably occur (usually early) during the course of the disease, and because in doubtful cases they may be relied upon to differentiate exophthalmic goitre from other forms of exophthalmus, tremor, tachycardia, struma, and the like.

The *exophthalmus* is commonly the first eye symptom to attract the attention of the observer. It gradually increases until the lids may be unable to close over the eyeball, thus rendering the globe liable to infection and interfering with the proper drainage of the conjunctival sac. In the early stages the ball may be pushed, without producing pain, back into the orbit but later this cannot be done. This fact can be explained if we remember the direct cause of the proptosis. At first the bulging is produced by the enlargement of the blood-vessels only and possibly the filling of the lymph channels. Later, a permanent pad of connective tissue and fat is deposited. When a cure is effected in a chronic example of the disease, the other symptoms usually disappear before the exophthalmus,—probably because the orbital fat does not readily undergo absorption. Occasionally, one eye subsides more quickly than the other. This sign can almost always be differentiated from orbital aneurism and tumor, by the fact of the proptosis in goitre occurring directly forward and of its being bilateral. We must not forget, however, that there is such a thing as unilateral exophthalmus in genuine Graves's disease. As Fitzgerald pointed out, it is usually the right eye and the right side of the body that are effected in these monolateral cases.

Before the exophthalmus appears *retraction of the upper lid and widening of the interpalpebral fissure* (Dalrymple's sign) is commonly seen. It is one of the earliest and most regular

symptoms of the disease. Our forefathers regarded it as a result of the exophthalmus. We know, on the contrary, that the proptosis seems more pronounced on account of the wide open lids. Continual palpebral retraction to an extent that exposes the white sclera between lid edges and cornea, above and below, is practically always a sign of disease. It is almost invariably a symptom of Basedow's disease, although the "staring eye" or "glotzaugé," as our German friends call it, is occasionally seen in certain forms of mania, in tetanus, in hysteria and other affections.

Infrequent winking is also an important and constant sign of exophthalmic goitre. This is known as Stellwag's sign, although most authorities persist in confounding or including with it the sign of Dalrymple. The truth is, so far as I have been able to trace it, that in 1869, Stellwag first described the sign that bears his name and drew attention to the retraction of the lids as the most noticeable cause of the glotzaugé. But Dalrymple, had years before (*London Lancet*, May 26, 1849,) published a definite description of this same phenomenon.

Graefe's sign is a most valuable one. It occurs early, is quite constant, and although it may be present in Thomsen's disease and sometimes fails altogether, it should always be searched for in doubtful cases. It consists in an impairment of the consensual movements of the upper lid in association with the eyeball. In a normal eye, when the globe is rotated downward, the upper lid-edge follows it, covers a portion of the upper cornea and preserves about the same distance from the sclero-corneal junction throughout the whole excursion. Much of this diagnostic value, which is great, depends its mode of application. It is better to cover one eye and ask the patient, with his head in the primary position and at ease, to fix the point of a pencil held eighteen inches from his face and on a level with the forehead. The pencil end is now slowly lowered, the head all the while in the primary position, and the pencil kept eighteen inches from the body, until it reaches a point opposite the ensiform cartilage. In exophthalmic goitre the upper lid, during this excursion, will be noticed to lag behind and even to expose a zone of white sclera between it and the cornea.

Insufficiency of convergence, or the sign of Möbius, depends upon the fact that the stretched internal recti muscles are unable to move the bulging eyes inward to the same extent and with the same facility that they can normally situated globes. It is

necessary for binocular vision that the visual axes should be directed at about the same angle toward the object to be fixed. Möbius claims that in Basedow's disease the excursions of the eyes in other directions are practically normal but that, without producing double vision, weakness of convergence is a characteristic of the majority of cases. It must not be forgotten that symmetrical paresis of the external recti muscles is sometimes a sign of exophthalmic goitre, and then we may have apparent excess of convergence.

Cases are on record, although it has never been my fortune to observe an example of this lesion, in which a single muscle was paralyzed while others have published instances of complete ophthalmoplegia externa. These are probably, in most cases, the result of nuclear disease.

What I regard as most valuable evidence of the disease is *Becker's sign*, first described by Otto Becker in the *Wiener klin. Wochenschrift* for 1873. I refer to spontaneous pulsation of the retinal arteries. This sign is, of course, met with in other conditions,—glaucoma, aortic regurgitation, and the like,—but it is an aid to diagnosis that we cannot afford to ignore. The pulsation does not, as a rule, extend beyond the optic disc (as in most cardiac lesions) and it is usually accompanied by tortuous and enlarged veins.

Epiphora,—watery eyes,—has been seen a number of times and may be very troublesome. I observed it in one of my cases—a woman—and Emile Berger mentions it as the earliest of the ocular symptoms in two of the histories reported by him. He speaks of it as a nervous affection of the lachrymal gland, but in the case under my own observation it seemed to result from the excessive proptosis, causing displacement of the puncta lachrymalia.

Dryness of the eyes is one of the commonest complaints made by patients. It is probably due to the absence of winking (the process by which chiefly the cornea and the bulbar conjunctiva are cleansed in the normal eye) and the exposure of the wide open eyes to wind, dust, smoke and other irritants.

One wonders that traumatic and other forms of keratitis, as well as infective ulcer of the cornea do not more frequently occur in the partially protected eyes of this disease. Basedow has himself drawn our attention to its occasional occurrence and gives an account of a merchant, aged 50, who lost both eyes, from perforating ulcer, apparently induced by driving in an open

carriage along dusty roads and with his eyes much exposed to the wind.

Loss of sensation of the cornea and conjunctiva has several times been noticed and doubtless has been overlooked in many other cases, as, of course, it is an objective symptom and does not attract the attention of the patient. A very pretty theory might be built upon the fact of its presence to account for at least some of the eye symptoms. I give it to you for what it is worth. As is well known, the incentive to normal winking and consequent cleansing of the eyeball is chiefly dryness of the anterior segment of the globe due to evaporation from the exposed surface. To this is added the foreign body sensations set up by fine dust and other particles. In the same way the lid maintains the same relative position upon the globe in all positions of the latter, in virtue of the orientation made possible by the same lid-eyeball-sense. Indeed, the maintenance of a certain space between the lid edges,—the usual size of the interpalpebral aperture,—depends largely upon the fibres of the fifth nerve supplied to all the parts. In exophthalmic goitre this sensibility is destroyed, hence the eye signs. Probability is lent to this hypothesis when we bring about this asensitive condition artificially. A few drops of a 4 per cent. solution of cocaine instilled into each eye at two minute intervals will, in from ten to twenty minutes, enable one to induce and study the Graefe, Dalrymple, and Stellwag symptoms without difficulty. Even the appearance of the proptosis is sometimes induced by the fixed stare that a cocainised eye not infrequently assumes.

Circumscribed edema of the eye-lids, as well as pigmentation of their skin surface, has been occasionally seen, but these are probably mere accidents and form a part of the dermal changes seen elsewhere on the body.

It seems remarkable that so far no definite blood changes have been discovered in this form of toxemia. Doubtless in the future we shall owe much in diagnosis to the careful analysis of those highly complex organic blood compounds almost certainly present in goitre patients, about whose origin and meaning we now know so little.

It is not my purpose to dwell upon the varieties of the disease or its complications,—hysteria, myxedema, and the like. It is well, however, to remember that to a previously existing simple goitre of the strumous variety, may be added the proptosis and the other signs of Graves's disease; that in its fullest

manifestations it may develop very suddenly as an acute disease, the symptoms be very severe and the end may be in death. On the other hand, its usual characters are those of a slowly progressive affection tending on the whole, as Hulke has pointed out, to recovery if the patient does not die of cardiac paresis or some other intercurrent disease. Exophthalmic goitre may, as we know, exist without at least two of its three cardinal signs. One side alone may be affected by the proptosis and the other eye signs, or quite a few symptoms may be wanting, Vigouroux's, Möbius', Bryson's, and others.

It was not my intention to say much about *treatment* because I have had no experience of the operative procedures recently advised, complete and partial thyroidectomy, sympathectomy and injections into the substance of the thyroid. We have the testimony, especially of Kocher and Stokes, in favor of the first named. All things considered removal of one or more cervical ganglia seems to be the most desirable of the operative procedures, as prescribed by Jonnesco and his following. Intra-glandular medication is, of course, not new except as to the medicaments employed. The last I have heard of is the injection of bile.

It is always to be remembered that medical treatment alone has sufficed to cure the disease. Brilliant results have been obtained by such different remedies that one is inclined to believe in the self-limitation of a certain class of goitres. They tend to get well, if left alone long enough. Electricity, mineral waters, hydrotherapy, large doses of sodic salicylate, belladonna, digitalis, ergotin, amyl nitrite, I have myself prescribed at various times and I think all with some benefit. I would strongly suggest that these patients live as quiet a life as possible, that they have plain, non-stimulating food and that they be induced to take as much sleep as possible. The difficulties encountered in treating severe cases of Basedow's disease are exemplified in a recent article by Tornatola (*Archivio di Ottalmologia*, May-June, 1901.) He was called upon to prescribe for a woman with fully developed Graves's disease in which the exophthalmus was very pronounced, 1.5 cm. in the right and 1 cm. in the left eye. An ulcer occupied the two lower quadrants and two-thirds of the thickness of the right cornea. The lids covered only about one-third of the globe. In the left eye there was a smaller ulcer in the center of the lower quadrant. Corneas retained their sensitiveness. After the usual disinfection

the lids were sutured, in such a way that the knots could be readily untied for appropriate treatment. In eight days the left ulcer healed, the right one in fifteen days. A month later she returned with a second corneal infection in both eyes, to be again cured. A third time the patient appeared with spreading ulcer in either eye, but on this occasion the lids could not be sutured over the globes, chiefly because the scarred skin of the lids no longer retained the threads and knots. Tarsorrhaphy was done but the adhesions soon gave way. Sympathectomy was then performed by Prof. Solomoni with considerable relief to the exophthalmus and the goitre; the tachycardia remained. Meantime the corneal ulceration, infiltration and conjunctival chemosis increased until the left eye had to be exenterated. Tornatola now endeavored to preserve some vision in the remaining eye and succeeded by supplementing a second tarsorrhaphy with large skin grafts from the nose and temple, until the interpalpebral aperture was finally closed. The patient's condition a year after was fairly satisfactory. Photographs and measurements show a reduction of the exophthalmus about one-half; the thyroid is "slightly reduced" and the general health decidedly better.

On the whole J. C. Da Costa's advice with regard to excision of the thyroid is most seasonable: "If medical treatment fails and the symptoms are urgent consider the advisability of partial thyroidectomy unless the goitre is very large or extremely small, or the patient is very hysterical. Removal of a very large goitre is extremely dangerous and will not bring about cure. If the thyroid gland is but little enlarged it is not necessary to remove it. In severe hysteria the operation is often useless. Never promise a cure and always set forth the danger of the operation."

103 ADAMS STREET.

Appendicitis, Etc., Complicating Pregnancy, Labor and the Puerperium.

By SAMUEL F. BROTHERS, Ph. G., M. D., New York City,

Visiting and attending gynecologist to the Metropolitan Hospital and Dispensary, New York.

UP TO the beginning of 1897 only fifteen cases of appendicitis complicating the reproductive state, were said to have been recorded. Pinard, in March, 1898, collected 45

1. Read before the New York County Medico-Pharmaceutical League, September 26, 1901.

cases, these probably including all the recorded cases in Europe as well as this country. Until a very recent date, nearly all these cases were included in the terms cecitis, pericecitis, typhlitis, pelvic abscess, local peritonitis and gangrene of the cecum.

The case now recited was brought to my attention on April 30, 1900, when I was requested to call on Mrs. B. M., in her fourth pregnancy. She was at this time in the latter part of the sixth month. I found her with a temperature of 101° F., with the usual pain and tenderness in the right iliac fossa. She said that she "had the same pain on the right side in her last pregnancy," lasting until a month after the birth of the child. On examination, the anterior cervical and uterine wall was found soft and knobby, this feeling extending outward toward the right fossa. The patient was perfectly self-possessed. The focal intensity of pain externally, corresponded to the base of the appendix, between the anterior spine and the umbilicus; the appendix could almost be felt. There was distinct circumscribed muscle tension. On the third day an iliac tumor was appreciable. On the fifth day dulness could be detected, but no fluctuation as yet. There was moderate vomiting.

Typhilitis was excluded, as the swelling was not "boggy" and temperature and pain were marked. Appendicial, renal and biliary colics were excluded by the febrile condition present and the absence of excruciating pain. As there was no history of spinal trouble, psoas abscess was not considered. Tubal and ovarian disease were excluded by the absence of any history of menstrual complaints and the want of indications during bimanual and rectal palpation. The intestinal obstruction was not marked. Typhoid was excluded by the absence of decided prostration, and of furred tongue, headache and excessive frequency of pulse. The intermittent, intense pain of iliac neuralgia was also absent.

The diagnosis of appendicitis having been therefore settled, narcotics were ordered until the next day, the 31st, when the temperature was found reduced to $99.1-5^{\circ}$; pulse, 95; respiration, 23. Twenty-four hours later, May 1, intermittent pains began; the fetal movements on the right side caused pain; temperature, 99° . On the next day, May 3, a vaginal discharge of pus occurred, having a disagreeable odor, but its site could not be located; temperature, $98\frac{1}{2}^{\circ}$. This discharge had been noticed since the preceding three days; the opiates were continued in moderate doses. She said that her last child was born thirteen months ago, and her trouble on the right side had continued from the third month of that pregnancy, until two months after the birth of the child.

Two days later, May 5, I was again hurriedly called to find, on examination, that premature labor had set in; her pulse registered 130 beats to the minute; she had had steady intermittent pains for the last four hours. The os was found dilated to the dimensions of a silver dollar; the head was presenting, with

the right foot alongside of it. The bag of waters burst at 11 p.m., the position being now left occipito-anterior. Birth occurred soon after, but the infant was almost lifeless, though breathing quietly. It expired ten hours later.

Placental removal was tedious, but after laborious twisting of the adherent membranes, apparently complete. No pain now, but temperature, 103° ; pulse, 135; quinine sulphate prescribed. By next day, May 6, her temperature had become subnormal, $97\frac{1}{2}^{\circ}$ F., but pulse was 100. On the 7th, a day later, headache was complained of, the temperature was normal, yet pulse continued the same. In another twenty-four hours fever again developed, 102° ; the uterine discharge was suppressed, and a disagreeable odor developed; a piece of membrane had been passed during the day.

Curettage was performed, and large, frequently repeated vaginal douches were ordered. The uterine body was extremely anteflexed upon the cervix. Another day, and her temperature and pulse had returned to the normal. Within the next four days it rose and then fell again to the normal, after which recovery was considered complete. After a full week had elapsed, however, I was again called, and found that although the patient had been about already, there was found on examination a distinctly circumscribed mass in the *left* pelvic fossa, with hectic symptoms. This was diagnosticated pelvic cellulitis. This developed into a fluctuating abscess within three days, pointing toward the abdomen; when operated, a large amount of pus was discharged, after which recovery progressed uninterruptedly.

I have attended two other cases, in one of which Dr. E. A. Gallant was called in.

In the Transactions of the Mississippi Valley Medical Association for 1899, Dr. Lewis Schooler, a surgeon, says in an article entitled, What becomes of the medicinally treated cases of appendicitis:

That some die from obstruction of the bowels caused by perforation of the appendix, and others from heart failure, peritonitis or sepsis; that a few get well by permanent disappearance of the symptoms; and that others are spontaneously cured by rupture into the bowel, vagina, bladder or externally.

Dr. J. W. Thomason, of Huntsville, Texas, in the second volume of the *Medical Record* for 1895, page 407, says:

Many cases of appendicitis will recover by natural processes and may be influenced favorably by medical treatment only. My own professional experience, he said, has convinced me of this fact, and that such is a common experience is one reason why surgical treatment is so often postponed longer than it should be. Then, too, delay in these cases does not always prove fatal. Such a case reported by Dr. Mundé was of a woman,

eight months pregnant, the appendicitis being followed a week later by the delivery of a dead fetus. The abscess was diagnosed a day after this, the operation performed six days later, and yet a good recovery resulted. On the other hand, operations reported, seem not to have been followed by such results as would justify surgical measures without hesitation.

Dr. L. L. McArthur, of Chicago, reports two cases in the February, 1895, number of the *American Journal of Obstetrics*:

One was operated on the third day, was followed by a 4½ months abortion a day later, and death the following day. The other operated after the third week; a five months miscarriage two days later, and death on the fifth day. To illustrate the difficulty of diagnosis, Dr. McArthur reports a case of typical symptoms and a temperature of 105°, when several surgeons concurred in the diagnosis; an exploratory incision showed the appendix and other organs normal. A macerated fetus was aborted next day, and she recovered; this was considered the cause, as there was no appendicitis.

In the discussion which followed at the Chicago Gynecological Society, it was brought out that the troublesome feature in dealing with these cases was the fact that the pregnant womb generally forms one wall of the appendicial abscess. The irritation produces abortion and the contracting womb tears adhesions that walled off the abscess, permitting septic matter to penetrate the general peritoneal cavity. On this account one member suggested the induction of abortion first.

Another thought that in those cases where the womb forms one wall of the abscess, the induction of abortion would tear the adhesions also.

Dr. Thomason's conclusions were that it is best to be conservative.

In the same journal of October 26, Dr. P. F. Mundé says:

Dr. Thomason quotes the delay in operating in the case reported by me in the number of December, 1894, as part justification for his delay in operating the case related by him, where the patient recovered without operation, and was delivered at term of a healthy child. While this result undoubtedly warranted the delay, and eventually the non-performance of an operation, I would not be understood as advising such delay in operating in other similar cases. In the case I saw with Dr. Hochheimer, he delayed the operation only four days, and I stated, I think, that in a future similar case I would open the abscess at once, as soon as a reasonable probability of its existence could be settled without reference to the pregnancy or the impending or completed delivery. I would rather take the chances of puerperal

infection from the abscess than of its unexpected rupture at any moment into the peritoneal cavity. Would that the question of diagnosis were as easily settled.

Dr. Thomason quotes several authors who report difficulty in diagnosis and unfavorable results from early operations, the women aborting and dying several days later. They do not say, however, nor can they say with any certainty, how long the acute inflammation of the appendix (probably with perforation already accomplished) had existed before the patient was seen by the operator.

In the case I relate, he continues, Dr. David Franklin asked me to see with him Mrs. ---, a multipara, who had been confined by a midwife two days before of a dead anencephalic fetus at term. The placenta failed to come away, but, in the doctor's absence, Dr. Chas. M. Ford was called, and detached it from the right side, and delivered it. Within twelve hours she began to vomit, the abdomen became tympanitic and right iliac pain developed.

When I saw her, pulse was 63, strong, but dicrotic; temperature and respiration normal; no particular sign of collapse; no perceptible dulness or resistance over the appendix; vaginal examination proved nothing. The patient said that her health was good before the confinement, but admitted that during her last three or four pregnancies, up to the fourth or fifth month, she had more or less pain, which gradually wore away. Her husband added that sixteen years ago she was very ill with a similar pain.

I diagnosed, says Dr. Mundé, besides the recurrent appendicitis, a probable rupture of an adhesion, produced either by the uterine contractions or possibly during the detachment of the placenta. The diagnosis and former probability were imparted to the husband, the latter possibility to Drs. Franklin and Ford privately. A perforation of the appendix was not then entertained, since there was no sign of general peritonitis. The vomiting, however, I decided to be undoubtedly reflex, from a local peritonitis, and I advised first controlling the vomiting by hypodermics of morphine over the epigastrium; and reducing the tympanites by ox-gall, glycerine and turpentine enemata; so as to enable us to arrive at a more positive diagnosis as to the actual presence of an appendicial abscess, and the advisability of operative interference.

The patient at that time did not seem in a good condition for anesthesia and laparotomy. Nutrition by the rectum was also recommended. Three days later much improvement was reported, but the same morning tympanites returned, the temperature and pulse went up to 101° and 112 respectively.

That afternoon I found that the stomach was good, but the tongue coated; strength still good; no decided local dulness or resistance; lochia offensive. Decided efforts were now made to empty the intestines of gas and whatever feces they might

contain by means of $\frac{1}{2}$ grain doses of calomel every half hour until twenty had been taken, and followed by dram doses of Rochelle salts and ox-gall enemata if necessary. Unless she improved by morning, an exploratory incision was suggested.

As the tympanites still persisted, and there had been no movement, I recommended, the next morning, puncturing the most distended coils of intestine with several hypodermic needles,—a proceeding repeatedly employed by me with benefit and no danger,—and arranged to operate later.

With the assistance of Drs. Franklin, E. Sternberger, Ford and Richards, I made the usual right lateral incision and soon discovered from the infiltration of the tissues, that there was deep-seated inflammation. On incising the peritoneum a large quantity of gas, and solid and fluid feces escaped, showing that a perforation of the appendix had taken place.

The general peritoneal cavity was apparently entirely shut off by the adherent intestines. Turning the patient on the right side, I gently irrigated the abscess cavity with warm sterilised water, and packed it loosely with iodoform gauze. The patient rallied from the operation remarkably well, and during the next twenty-four hours enormous quantities of gas escaped and fluid feces oozed through the dressing and were passed per anum. The temperature was normal on the next day, and the patient's condition fairly good, except an unpleasantly rapid, although good, pulse. The deep dressing was not disturbed for fear of rupturing fresh adhesions. Stimulants *ad libitum* were ordered, chiefly champagne. After a good night, however, a change for the worse took place. The pulse went up to 140 and became thready, and after noon she seemed almost moribund. The dressing was changed, oxygen inhalations were ordered, stimulation hypodermatically, and the like. Three days later she died from exhaustion.

In consequence of the recurrent attacks, undoubtedly the appendix was adherent, and in a soft, friable condition at the time of the last labor; and during or immediately following the labor, perforation took place, and fecal matter was discharged into a cavity sealed off by the previous attacks. This perforation was the cause of the reflex vomiting, and the intestinal paresis causing tympanites. The diagnosis of appendicitis was made twenty hours after perforation had occurred, when I first saw her. The diagnosis of perforation, is, after all, the chief difficulty.

To prove the possibility of spontaneous recovery after perforation, Dr. Mundé related the case of a male in whom the appendix broke away piecemeal, on attempting to tie it off, its fragile character, showing that it had been perforated for some time previously.

He concludes:

The disease should be treated entirely regardless of the existence of pregnancy. I do not agree with those gentlemen, therefore, who would induce abortion or premature labor during, and on account of, appendicitis.

Dr. S. Marx, in the same journal of June 18, 1898, in a clinical report, says that "there was reason to think that the congestion of the system and the vicious condition of the blood associated with pregnancy acted as a predisposing cause of appendicitis." He thought that the diagnosis was "not of much importance, because if the symptoms were sufficiently severe the treatment was operative, whether the appendix or the uterine appendages were the seat of the inflammation."

On the other hand, operations reported, seem not to have been followed by such results as would justify surgical measures without hesitation. In one case Dr. Willy Meyer removed an eight-inch appendix where the disease developed six hours after a normal labor.

Another case was a four months primipara, operated by Dr. Gerster. Recovery was satisfactory, but, although the delivery was normal, forceps was used with the idea that it would take the strain of the second stage off of the abdominal scar. A few hours later she experienced much pain about this scar, apparently from the rupture of an abdominal adhesion band.

The third case was a di-para two-and-a-half months after a suppurating ovarian dermoid had been removed. The appendicial symptoms developed after labor. She recovered, refusing operation, but subsequently allowed it, during a recurrence. The appendix was firmly imbedded in the posterior wall of the suppurating mass; recovery ensued.

The fourth patient was a primipara in the maternity hospital, who had an attack of peritonitis three years before; at the seventh month of pregnancy she began to complain of pain over the appendix, but the pulse and temperature were normal. The treatment consisted in catharsis, the use of the ice-bag and rest in bed. At the operation, the right tube and ovary constituted part of the abscess-sac and the appendix was necrotic. Twenty-four hours later labor set in, and a living child was delivered. The temperature and pulse rose rapidly, general septicemia was apprehended and she was given 10 c.c. of Gibier's antistreptococcus serum, with the happiest result. The appendix came away on the fifth day; on the twelfth she began to have chills

and fever, and to develop a sero-purulent peritonitis. After an extensive operation convalescence was slowly established. Meanwhile the serum was continued in small doses.

Dr. Marx said that where the uterus formed part of the abscess-wall, he delivered the woman at the beginning of labor by manual dilatation of the cervix, version or forceps delivery, and immediately tamponned the utero-vaginal tract.

In the fifth and last case recorded, the abscess cavity was encapsulated. The parts were thoroughly washed with hydrozone and a gauze drain was inserted. All of the symptoms improved; on the sixth day it was decided to suture the wound. She suddenly developed symptoms of intestinal obstruction, and exploration under ether revealed an obstruction in the ascending colon, due to a constricting band. Pus was found coming from the general peritoneal cavity, so multiple incisions were made, a gauze drain was inserted and doses of Marmorek's streptococcus serum administered. A fatal termination occurred in forty-eight hours. In his puerperal streptococcus cases the serum had invariably failed; when it acted well, the effect was observed quickly; large doses of the serum produced headache, nausea and vomiting, with rise of temperature.

Dr. Boldt said, during the discussion, that he had once a case complicating extrauterine pregnancy, the diagnosis being made during the operation for the ectopic gestation.

Dr. Wells did not think a recent abdominal scar should indicate instrumental delivery. He had delivered from six weeks to four months after abdominal section without any injury to the scar.

Dr. Howard Crutcher, of Chicago, (*Medical Record*, September 26, 1896,) relates the case of a seventeen-year old, unmarried female patient of Dr. Frank H. Waters, who was curetted after a two-months' abortion; after general sepsis developed, operation showed a perforated gangrenous appendix, adherent to the right tube and uterine fundus. A fatal result ensued.

Up to December 5, 1896, (same journal) Dr. Robert Abrahams stated before the New York County Medical Association, that only 11 cases had been placed on record, 10 suppurative, 1 catarrhal. He added 4 new ones, in which both mothers and infants lived. In his first case, the 7½ months infant lived six days, the mother recovering spontaneously. The second case suffered from two recurrent attacks since the child-birth, but refused operation. The other two also recovered without operation. He thought that obstinate constipation might be a cause,

as it was present in all but one of his cases. The pathology only differed from the same condition without pregnancy in that the enlarging uterus would affect adhesions. In differential diagnosis, a tubal pregnancy only lasted four months before rupture. As to hematocele, in only one of the cases on record had a tumor of doughy feel at the vault of the vagina, proven to be appendicitis. Inflammation of the pelvic organs, ovaritis and salpingitis, was almost always infectious in origin. Floating kidney and renal calculus might occasionally be mistaken for it.

As to prognosis, there had been seven deaths out of ten suppurative cases. All cases of catarrhal appendicitis had recovered. Of operated women, only one child had lived; the rest died before or after operation on the mother. Of the whole fifteen cases reported eight recovered and seven died. "These rules were partly Dr. Willy Meyers's," he said "as indications for operation." (1) operate early, within twelve hours, in the acute perforative form; (2) take the pulse as a guide, 106 to 120 being the indication for operation; the pulse should also be out of proportion to the temperature; (3) in cases of doubt, operation is better than waiting; (4) sudden lull of symptoms, and within twelve hours, sudden recurrence; (5) in cases of old appendicitis lit up during pregnancy, operation ought to be done, even if the attack is a mild one, especially if it occurs early in pregnancy."

In the discussion, Dr. Robert T. Morris thought appendicitis should be expected more frequently during pregnancy, because, first, in such condition the appendix hung over the pelvic brim in about 35 per cent. of the cases and was thus more liable to become bruised by the enlarging uterus; and, second, in the many cases where adhesions existed, they were likely to be broken up during the same process. He thought that the catarrhal form could only exist as an extension of intestinal catarrh, and would give no symptoms of appendicitis. Resisting clonic spasm of the abdominal wall, he thought, served to distinguish acute appendicitis from typhoid and salpingitis.

Dr. William T. Lusk related a case where several experienced surgeons felt an appendix distinctly, which proved to be a tubal pregnancy upon operation.

Dr. H. J. Garrigues operated a case, which subsequently developed a fatal pleurisy. Dr. Willy Meyers thought that every recurrent case should be operated, to guard against hernia in the operation wound.

Dr. Howard Lilienthal related a case, wherein he was called

in consultation by Dr. Vineberg, apparently of appendicitis complicating pregnancy, although the possibility of typhoid fever was not excluded. They found a normal appendix, and nothing to account for the symptoms. On emptying the uterus, the collapse became more profound, but she suddenly took a turn for the better.

Dr. Bernard S. Talmey thought that in perhaps not more than 10 per cent. of all cases, was it necessary to call in the surgeon; he thought the other 90 per cent. must be catarrhal.

Dr. Henry Illoway thought pressure of hard fecal masses accounted for the inflammation originating from within.

In the *American Medico-Surgical Bulletin* for November 7, 1896, the case of a 9-year-old boy was reported, where Dr. B. F. Curtis first treated a swelling of the foot with a wet dressing; a few days after an abscess of the biceps had to be incised, but the elevated temperature continued, and two days later an appendicitis developed, presenting upon operation a large encapsulated abscess, between the cecum and omentum; the general peritoneal cavity was necessarily opened. A septic bronchitis later developed, and it was decided that after recovery it would be advisable to operate for a ventral hernia.

Dr. Mundé, at the Congress of Physicians and Surgeons (*Medical Week*, May 28, 1897,) pointed out that abortion or premature labor was induced by the appendicitis, on account of local irritation, or through the fatal effect on the ovum of the hyperpyrexia; another point was the masking of the true diagnosis by normal labor-pains, and the difficulty of differentiating it from puerperal septic infection. He claimed that if labor was in progress, immediate operation was essential, in order to avoid the effect of traction-rupture of the abscess by the uterine contractions. He believed that vagino-abdominal palpation did not cause pain, unless salpingo-oöphorectomy coëxisted; and that a pyosalpinx or pusovary adherent to the peritoneum in the right iliac region, or a small ovarian cyst with twisted pedicle, might simulate it. If the diagnosis was in doubt he preferred making the incision in the right semilunar line, since, if it proved an appendicitis, this was the shortest way to the seat of disease; and, if salpingo-oöphoritis, pyosalpinx or ovarian abscess, the diseased organ could quite as easily be removed as through a median incision.

Pinard (*Sem. Med.*, March 23, 1898, per *British Medical Journal*, May 7, 1898,) has collected forty-five cases, the diagnosis

being confirmed in 30 by operation or post-mortem. He concludes that the child dies as a rule very rapidly from infection—that it is only possible to save both mother and child when the abscess is limited and encysted; that every type of appendicitis may occur; that diagnosis is usually possible with care; that induction of labor is unjustifiable, since pregnancy is not always interrupted, if the mother recovers, and that relapsing cases should be operated previous to, or in the interval between, pregnancies.

We have now given a clear résumé of the literature on the subject, and have collected, besides, 1,024 contributions on appendicitis from our library, but lack of space prevents their enumeration here. We are convinced, also, that many cases have never been recorded, chiefly because, on the one hand, the course of the disease was too mild to excite interest, and on the other—because a fatal result followed operation. The only way, therefore, to arrive at an understanding of the best form of procedure to pursue in a given case, would be to address a written set of questions to every licensed practitioner, and to formulate a set of rules from the majority opinions, which all should be expected to adhere to, until revised.

The logic of conservatism in the treatment of appendicitis during the reproductive process, may be summed up as follows:

(1) The cardinal argument is the admitted fact that cases do recover completely without operation; (2) it is necessary to respect the popular fear of all operations, in the absence of good reasons for ignoring it; (3) “self-preservation is the first law of nature,” and none of you desire another practitioner, with perhaps less conscientious scruples,—and perhaps as much in need of “the root of evil” as yourself,—to displace you by humoring the patient’s feelings with a recommendation of delay, after you have insisted on immediate operation; (4) the still open question as to which procedure is safest for the mother, a child’s life being the secondary consideration. And, finally, the knowledge that certain cases are beyond human assistance from the onset.

1547 MADISON AVE.

IN A discussion of the safest anesthetic to use in diseases of the heart, Hare (*American Journal of the Medical Sciences*, August, 1901,) states that the cardio-vascular system of patients who are going to be anesthetised should be more carefully studied than is customary. Ether greatly increases the arterial tension and where the latter is high the administration of ether is directly contraindicated.

Special Article.

Report of the Medical Department of the Pan-American Exposition, Buffalo, 1901.

By ROSWELL PARK, M. D., Buffalo, N. Y.,

Medical Director.

THE subjoined report of the workings of The Medical Bureau of the Pan-American Exposition Company is submitted for the information and use of the Board of Directors and all others who may desire to refer to it. This bureau was really organised during midsummer of 1900 by the appointment of the writer as medical director and the recognition of the department as an independent one, the director reporting only to the executive committee and the director-general. The writer was given free power in the selection of his assistants and in operating his department. He was informed that the sum of \$20,000 had been appropriated for the expense of the department from its inception to the close of the exposition. Out of this, the hospital was to be equipped and all the running expenses paid.

Organisation being the first requirement, he selected Dr. Verner Kenerson as deputy medical director, Miss Adella Walters, a graduate of the Buffalo General Hospital, as superintendent, and Miss Minnie A. VanEvery, who was to act in combined capacity of stenographer and trained nurse. About the 1st of September, 1900, four rooms in the Service Building were assigned for the use of the department. It was not long before it appeared necessary to have a resident physician who should be available for service at all hours of the night and day, since more or less night work was going on, and there was always a liability to accident. Accordingly Dr. Alexander Allan was selected and took up his residence in the Service Building a couple of weeks later, Dr. Eli Schriver, Jr., substituting for him for a short time. From the 1st of September, 1900, until the 1st of May, 1901, these rooms were made to suffice for the purpose. Most of the cases attended during this time were of the nature of minor injuries, there being occasional cases of illness, and very few serious accidents. During this construction period, 750 people received "first aid" attention in these temporary apartments.

As the season for opening the exposition grew nearer, more detailed plans for caring for visitors were required. Accordingly, a small area between the Service Building and the West Amherst

gate was selected as an appropriate site for the hospital. It was intentionally placed near the gate in order that it might be more easily approached by carriages and ambulances from without, as also because there was ready access to the street cars. Plans for the hospital building were prepared by the medical director and Mr. Weatherwax, the chief draughtsman in the Service Building. These provided for three wards, two for men and one for women, with accommodations for 25 beds, with a complete operating room outfit, suitable offices, accommodations for nurses and resident physicians, and sheds for ambulances. Descriptions of this building have already been published and it is perhaps hardly necessary here to go into detail.¹ Suffice it to say that a practically complete small hospital was erected and equipped with everything needed for the purpose. A part of the purely surgical equipment was loaned by The Jeffrey-Fell Company, of this city, as a part of their exhibit, and to them this department is under many obligations for courtesies and assistance of this kind.

The Wagner Company also supplied, in the same way, a large static machine, with an *x*-ray outfit, and numerous smaller exhibits were sent in for use by various individuals and firms. Operating table, ordinary sterilising appliances and instruments were provided at the outset by the Exposition Company.

The department force and physicians was now increased by several important appointments. Dr. Nelson W. Wilson was appointed sanitary officer, and at once entered upon an exceedingly active campaign, which resulted in a sanitary condition of affairs which was noticed by almost every visitor to the Exposition. More will be said about these sanitary arrangements below.

During the first month of the Exposition period, the roster of the hospital was as follows: Dr. Roswell Park, medical director; Dr. Vertner Kenerson, deputy medical director; Dr. Nelson W. Wilson, sanitary inspector; Miss Adella Walters, superintendent; Miss Minnie A. VanEvery, stenographer and trained nurse; Drs. A. F. Zittel, Alexander Allan, Geo. McK. Hall and E. C. Mann, house staff; Messrs. B. J. Bixby, Bert Simpson, T. F. Ellis and Norman S. Betts, ambulance men and male nurses.

The May nurses were: Mrs. Laura Hesselberg, Presbyterian Hospital, New York; Miss Claribel Lichtenstein, La Tour Infirmary, New Orleans, La.; Miss Cecil Dodge, Chicago Baptist Hospital, Chicago, Ills.; and Miss Margaret Haines, Buffalo Children's and Woman's Hospitals, Buffalo, N.Y.

1. See BUFFALO MEDICAL JOURNAL, April, 1901, p. 701.

June nurses: Misses A. L. Greenwood and Miss Florence Hamilton, Buffalo General Hospital; Miss Laura Jarvis, Arnot Ogden Hospital, Elmira, N.Y.; Miss Eleanor Alexander, Kingston, Ont., and Miss Mabel Farnsworth, Buffalo.

July nurses: Miss M. McCulloch, Lansing Hospital, Lansing, Mich.; Miss Jennie Wanner, Garfield Memorial Hospital, Washington, D.C.; Miss Maud Trueman, Royal Victoria Hospital, Barrie, Ont.; Miss Hattie Cary, Buffalo General Hospital; Mrs. Eunice Hughes, University of Maryland Hospital; and Miss Dodds, Lexington Hospital, Buffalo.

August nurses: Mrs. Anna Richmond, Hants Infirmary, London, Eng.; Miss B. Jelly, London, Ont., General Hospital; Miss Teresa Bartle, St. Luke's Hospital, Chicago, Ill.; Miss J. B. Downing and Miss Katherine Simmons, Roosevelt Hospital, New York, and Miss Mae Railton, Buffalo General Hospital.

September nurses: Miss K. Simmons, (2d month) in charge of Crèche, Roosevelt Hospital, New York; Miss Dorchester, Buffalo General Hospital; Miss Baron, Long Island College Hospital, Brooklyn, N. Y.; Miss Shannon, Spanish War Nurse and General Memorial Hospital, New York; and Miss Morris, St. Luke's Hospital, New York.

October nurses: Miss M. L. Davidson, Long Island College Hospital, Brooklyn, N. Y.; Miss Anna Hadden, Orange (N. J.) Training School, Orange, N. J.; Miss Charity Babcock, Johns Hopkins Hospital, Baltimore, Md.; Miss M. Michell, Jewish Hospital, Cincinnati, O.; and Misses M. Conners and McLaren, Rochester City Hospital.

Arrangements had been perfected during the preceding months for ample supply of nurses, as well as for their selection from various schools in the country. A circular of information was prepared and sent out, inviting applications and informing applicants that their applications for one month tour of duty would be received, and that for these services they would be given all the privileges of the fair, with ample opportunity off duty to see all that was to be seen, and that they would receive also \$25 each as a mere honorarium intended to cover their traveling expenses, and the like, in addition to their board and laundry. Over 150 requests from all parts of the country were received. From these selection was made, as above, those serving for each month being indicated. A housemaid was also added and served in the diet kitchen.

The rule was laid down positively, first of all, that there was to be no charge for services rendered, and that these were to be only of the first aid order, patients being kept only long enough to enable them to leave the building or the grounds in suitable condition. The rule was also made that no patients were to be kept over night, but were to be sent to their homes, to the railroad stations, or to some other hospital, as they might elect or the circumstances might require. This rule was disregarded only in one or two instances in the case of some of the resident population who had no place to go, or who could not be accompanied by an interpreter.

Suitable badges were provided for the three principal medical officers, of gold or silver, and for all the hospital corps of silver, with the red cross as a prominent feature, by which their wearers were enabled to pass, at all times, to all points within the grounds. All the male members of the hospital corps were dressed in suitable blue uniforms for cold weather, and white for warm weather, and every nurse when on duty wore the uniform of the school from which she graduated.

The Exposition guards were instructed to recognise the badges of the medical corps and to render such assistance and coöperation as might be called for at any time. On numerous occasions they were of no small assistance.

The Medical Department was given jurisdiction over all the sanitary arrangements of the grounds and matters pertaining to public health. This included supervision of the houses of public comfort, all the sewerage and drainage arrangements of the grounds themselves, the foods served in all the restaurants, the soft drinks in the various restaurants and concessions, and everything that pertained to public health. How carefully these sanitary arrangements were attended to will be evidenced by the fact that few, if any, cases of illness due to lack of any precautions have ever come to our knowledge. Not a few persons suffered from over-indulgence, but so far we have learned no one suffered from improper character of food, save in the instances, to be referred to below, of the Indian children who were made sick by eating decayed fruit thrown out from the Horticultural Building.

The hospital building was placed in perfect telephonic communication with all parts of the grounds and nearly all of the ambulance calls which came in were reported over the telephone. A pay roll was sent in every month, having upon it the name

of every employee of the department. No one was asked to do work for nothing, and every one was paid for his or her work exactly as per the original agreement.

Early in the progress of the fair it had been suggested to establish a Crèche. By resolution of the directors this was not done, however, until August, when large tents were erected, cots provided, and one of our nurses detailed for this especial work. A nursery maid was also employed. For the care of children in the Crèche a nominal charge was made of 25 to 50 cents, according to the time they remained, and these were the only fees or money accepted by the department during its entire service. The Crèche proved to be very popular, and during the hot weather of August and early September, was well patronised. It a little more than covered the actual outlay it required.

The original intention was to have three ambulances, one of each type,—electric, gasoline and steam. It was found, however, that none of the manufacturers using gasoline engines made an ambulance, and the Rochester firm which promised a steam motor vehicle failed to keep their agreement. Consequently, the only ambulance maintained upon the grounds throughout the season for our work was that on the Riker system, furnished by The New York Electric Motor Vehicle Company. This was put in commission before the opening of the fair as an exhibit, and, during the season, made many hundreds of trips of various lengths. Not once did it disappoint us in its reliability and constant availability, and while I feel that we are under very many obligations to the company which furnished it, I cannot speak in too high terms of its efficiency.

The water supply to the grounds and buildings was ample and always reliable. The water supply of the City of Buffalo being at all times exceptionally good, we had but very little to contend with in the matter of pollution from this source. Several attempts were made to create newspaper sensations at a distance from Buffalo, and to make it appear that exposition visitors had contracted typhoid upon our grounds. Every one of these, however, when investigated, proved to be purely sensational and without foundation.

The sewerage of the grounds was also excellent, and we had very few complaints on this account. We were met more than half way by the city authorities whenever it was necessary, and I may say at this point that there was throughout the whole period the heartiest coöperation between the City Health Depart-

ment, with its various officials, and ourselves. Health Commissioner Wende extended many courtesies to us in this regard.

A very complete set of hospital records was kept. In a large book were entered the name, age, temporary and permanent addresses of every patient, along with the nature of the trouble for which he came to the hospital, and also the final disposition of the case. Aside from this, a duplicate card record was kept, which included the number, as taken from our large book, the name, residence, the city address, hour and date of admission and of discharge, the name of the employee, if the patient were an employee, the method of his admission, *i.e.*, whether he came by ambulance, rolling chair, stretcher or on foot, the moment when the ambulance call was received, and the moment when the patient was delivered at the hospital, diagnosis, brief note of treatment, and a statement regarding the final disposition of the patient. One set of these cards was filed for our own reference and use and the other was sent daily to the Committee on Law and Insurance, so that every night the legal authorities of the Exposition knew just what accidents had been cared for, or possible liabilities incurred through the day. This was an extremely valuable feature of our work and saved much trouble. Our own card records were preserved in alphabetical order, as well.

From the outset, I insisted that patients coming to us for help should be treated with every courtesy and with becoming privacy. During the earlier weeks of the fair, I had considerable trouble with reporters from various papers who exhibited an undue and unbecoming anxiety to get what they considered news and construct out of the items given them more or less sensational reports. The rule was laid down, and strictly adhered to, that no names should be given out without the consent of the individuals concerned, that our records were private, that our hospital was a retreat and an asylum to which those who were sick and injured could come when they desired for refuge from the public, and that from this rule there should be no departure. The local manager of the local press made himself peculiarly offensive in protesting against this rule, but it was nevertheless adhered to, and the riot act was read to him on more than one occasion.

Herewith are submitted statistical tables, from which sufficient information may be gleaned as to the general character of our

work, number of cases, etc. The tables will be self explanatory and probably need no further comment:

TABLE I.

CLASSIFIED LIST OF CASES NOS. 1 TO 5,573.

Continued and eruptive fevers	17
Malaria	7
Rheumatism	75
Diseases of nervous system	162
Diseases of circulatory system	189
Diseases of respiratory system	223
Diseases of digestive system	1,971
Diseases of lymphatic system	14
Diseases of urinary system	20
Diseases of generative system (male)	15
Diseases of generative system (female)	45
Diseases of skin	111
Diseases of and injuries to the eye	247
Diseases of ear	28
Diseases of chest	12
Diseases of throat	205
Heat exhaustion	55
Exhaustion (other)	51
Syphilis	5
Burns and scalds	97
Minor injuries and wounds	1,482
Scalp wounds	80
Sprains	158
Dislocations	5
Gunshot wounds	6
Electric shock	3
Intoxication	4
Toothache	161
Teeth extracted	43
Fractures	78
Fracture of radius	4
Fracture of clavicle	2
Fracture of fingers	7
Fracture of nose	7
Fracture of arm	11
Fracture of skull	4
Fracture of leg	7
Fracture of foot	2
Fracture of ribs	6
Fracture, Potts's	1
Fracture of toes	3
Fracture of femur	2—78
Deaths in Pan-American hospital	4
	5,573

TABLE II.

DEATHS IN PAN-AMERICAN HOSPITAL AND AMBULANCE.

Case No. 2,226. Pneumonia.
 Case No. 4,175. Apoplexy.
 Case No. 5,557. Heart Disease.
 Death in ambulance of man shot during a fracas in the Free Midway.
 Baby in Indian Village, died of entero-colitis, treatment being refused.
 Premature birth (6 or 7 mos.) in African Village.
 Indian baby died, in hospital, of inspiration pneumonia, following inspiration of some grains of partially cooked rice.

DEATHS BY ACCIDENT ON THE GROUNDS.

One man killed by cars before Medical Bureau was organised.
 Case No. 613. Struck by Belt Line train; both legs severed from body. Killed instantly.
 Case No. 631. Fracture of skull. Killed instantly.
 Case No. 3,490. Bullet through sternum. Killed instantly.
 Case No. 3,568. Fracture of skull. Killed instantly.
 Two men killed by electricity. Not taken to hospital.

TABLE III.

BIRTHS.

Two births in Indian Village. One birth in Filipino Village.

TABLE IV.

TOTALS OF PATIENTS BY MONTHS.

August, 1900 . . .	17	April, 1901 . . .	167
September, " . . .	60	May, " . . .	482
October " . . .	86	June, " . . .	660
November, " . . .	94	July " . . .	1,018
December, " . . .	73	August, " . . .	1,145
January, 1901 . . .	92	September, " . . .	954
February, " . . .	59	October, " . . .	554
March, " . . .	100		5,561
Total for construction period up to May 1, 1901			748
Total for Exposition period up to November 1, 1901			4,813
			5,561
Daily average for construction period			2
Daily average for Exposition period			26

TABLE V.

NUMBER OF PATIENTS SENT TO EACH HOSPITAL.

Buffalo General	36	Homeopathic	8
German	2	Riverside	2
German Deaconess' . .	1	Sisters'	21
70			

SUMMARY.

Total number of diagnoses	5,572	
Total number of persons killed	4	
		5,576
Total number of patients treated	5,567	
Total number of cases with more than one major injury	9	
		5,576

Further details regarding the sanitary inspection of the grounds may be of interest. Much of what follows I have epitomized from the monthly reports of Dr. Wilson, the sanitary inspector. During the earlier part of the fair period two daily inspection tours of the Midway and one of the grounds and buildings were made. Suitable blanks were prepared and sent in to medical headquarters each day, reporting the extent and time of inspection and the results. One of these blanks showed, at a glance, the daily condition of the Exposition; another gave a list of the places inspected each day; another was served on exhibitors and concessionaires on whose premises any sanitary nuisance existed. In this last those at fault were given a certain number of hours for the correction of the nuisance, while failure on their part to comply with the order within the time limit resulted in the work being done under the supervision of the sanitary officer and the expense charged against the premises. At the conclusion of the necessary work, reinspection was made, and another blank filled in with details and sent to the medical director. During the month of May, for instance, 68 nuisance notices were served, and in only one instance was it necessary to call upon the Superintendent of the Exposition Street Cleaning Department to remedy the fault. Some trouble was met with in that portion of the grounds occupied by the Indian Congress, where the land lay low and where the Indians lived in tepees, which, after the heavy rains of the month, once or twice became almost uninhabitable. In this case the concessionaires voluntarily raised the ground, and the sanitary bureau provided an extra drain, and thus the fault was remedied.

Early in May, or very shortly after their arrival, the Esquimaux in the Esquimau Village developed an epidemic of measles, of which there were, in all, eleven cases. The village was quarantined and a guard stationed at the gate. The cases were transferred, as they occurred, to the contagious pavilion of the General Hospital, and quarantine was maintained until May 30. Mumps also appeared in the Hawaiian Village, but prompt quarantine checked a spread of the disease.

An important part of the work was the regulation and supervision of the milk and cream supply. In every place on the grounds where these articles were on sale the source of supply was learned, and it was ordered that neither of them should be bought from any source save a dealer subject to the City Health Department regulations. When concessionaires did not live up to these requirements, delivery of goods was stopped. Careful inspection of meat and ice boxes and supplies of this character was practised from the beginning, and not a few times bad ice was condemned. Some difficulty was met with in the beginning in ensuring proper cleaning of the tumblers at many of the stands where soft drinks were sold. This was mainly due to the lack of running water at these points.

Every water closet for men was in charge of a male attendant, and a woman was placed in charge of each woman's toilet room. Directions were given which preserved almost absolute cleanliness, and throughout the season there was very little ground for complaint on this score. By the first of June, there were in operation on the grounds over 500 closets and urinals, a map showing the former being kept constantly on file at the Medical Director's office. As warm weather approached, every restaurant was required to furnish the name of the dealers supplying milk, cream, ice cream and meats, and the ice boxes and refrigerators were carefully watched.

In July it became necessary to keep careful watch on the Indian Congress because of the susceptibility of the Indians to tuberculosis. During this month eight were returned to their reservations and the quarters occupied by them thoroughly cleaned and disinfected. In the Filipino and African Villages it became necessary to put up health notices in more than one language, and to issue very positive instructions to managers and interpreters, especially regarding the proper use of ordinary toilet and sanitary provisions. Our principal trouble was to maintain reasonable cleanliness among the inhabitants of The Beautiful Orient. Only after continuous and constant pressure was it possible to get them to keep their stables and yards reasonably clean. More than once it was necessary to seize rotten fruit sold at the fruit stands in the Streets of Cairo. The inhabitants of this concession seemed to be absolutely incorrigible, and incapable of appreciating the ordinary laws of health.

During the month of July, there were 29 restaurants open and doing business, and 43 stands at which soft drinks were sold.

The resident population for the month was—people, 1,535; animals, 607. Food supplies were frequently inspected on receipt, but about the only time when it was necessary to order food thrown out was one occasion in August at a restaurant in the Beautiful Orient. About the only influence which could be effectually brought to bear on the people in this concession was a threat to close up the business. The other concessions gave very little trouble. Once at the Filipino Village an old woman well advanced with pulmonary tuberculosis was found at work stripping tobacco for the cigar makers. She was promptly removed from the tobacco room and directions given regarding the disinfection of her sputum. During this month of August also an Indian baby died at the hospital of inspiration pneumonia, which was not due to exposure, but to trouble following inspiration into the lungs of some grains of partially cooked rice.

By the end of July there were 36 restaurants and eating places, 14 kitchens on concessions and villages, and 57 soft drink stands, and the resident population had increased to 1652. That the residents of the concessions had adopted stricter sanitary measures was evident from the fact that during this month it was necessary to issue only 43 time-limit notices threatening condemnation for failure to correct. After a while, the regular hours of inspection were abandoned and the inspections were made at irregular and intentionally unexpected intervals in order that no preparation for them could be made. The results of this change were an evident improvement in all sanitary conditions. In no case during August was it necessary to condemn milk or cream, and only one eating place gave any serious trouble. This was the Nebraska Sod House, which was an almost constant source of bother and which later had to be closed. Night inspections revealed the fact that many people were in the habit of sleeping beneath the counters in booths in various streets. The practice was stopped, for instance, of making of candy in a booth in which a family of four lived, cooked, ate and slept.

On the 9th of August an Indian child was taken seriously ill. Treatment by the medical department was refused and the Indian medicine man took charge of the case. The child died within twenty-four hours. Investigation showed that the death of this child and the serious illness of two others were due to the fact that the Indian children were in the habit of eating fruit which their parents had secured from the Horticultural Building, which

fruit was discarded because it was no longer fresh nor presentable. It was hard to impress the Indian parents with the idea that this trouble was due not to the "anger of the Great Spirit," but to disregard of common hygienic laws. Dr. Wilson, however, succeeded in impressing them with the idea that it was rotten fruit which "the Great Spirit" did not like to have them eat. During this month also four more Indians were returned to their reservations on account of tuberculosis.

A mild epidemic of barber's itch appeared upon the grounds, which was traced to barber shops outside, where a number of guards and attendants were in the habit of being shaved. Suitable treatment of individuals and suitable instructions at the barber shops soon checked this difficulty. By the end of August the number of people living on the grounds was 1703, and the number of animals 1,255.

A little ripple of excitement was caused by newspaper statements, that eight persons coming from Newark, N.J., had contracted typhoid fever at the Exposition. It appeared, on careful examination, that typhoid was prevalent in Newark at the time these people left home, and it was easy to see that their typhoid was contracted before they came to Buffalo, although it may not have appeared until after their return home.

In September, national calamity led to the closing of the Exposition on three different days. It was naturally expected that there would be temptation to keep food supplies too long and it became necessary to condemn a number of supplies of meat and other food, as well as of milk and cream. Every restaurant and every kitchen was carefully inspected prior to reopening and where there was any doubt condemnation was enforced.

The Beautiful Orient continued to give more or less trouble, and on one evening visit twelve people were found occupying one small room. It was cleared and disinfected, and the practise prohibited. It became necessary to return three more Indians to their reservations, one had a broken arm, the others were suffering from tuberculosis. A mild outbreak of measles occurred in the camp of the United States Marines. The cases were sent to the hospital and tents and quarters were thoroughly fumigated. During September a few cases of milk fever were reported among the animals of the Live Stock exhibit. They were properly cared for by a veterinarian, and the disease did not spread. During September, the largest resident population was met with, namely, 1792.

During the closing months of the fair there seemed to be temptation to carelessness on the part of some of the concessionaires and vigilance was redoubled. While it was necessary in a number of instances to condemn food during this month, there was but one known instance of serious trouble which might have been charged to negligence in this respect. This was the case of a young woman who was taken acutely sick on the grounds, and who died later at the General Hospital. A careful investigation showed that she ate little or nothing upon the grounds, and that, although she seemed to die of ptomaine poisoning, it was not due to anything which she had procured within the Exposition limits. During October, four more Indians were sent home. At the conclusion of the Exposition period—namely, on the second day, of November, all sanitary supervision of the grounds, and the like, was formally transferred to the City Health Department, and the operation of this bureau, in this and all other respects, were completely suspended.

The expenses of the Medical Bureau ran up to a total of \$16,332.72. This included all the moneys which were paid out for any purposes connected with the bureau, household equipment, drugs, running expenses, and Crèche. This amount includes \$4,832.80 expended previous to May 1, and \$11,499.92 expended between May 1 and the close of the Exposition. The cost of the hospital was \$6,966.54.

A brief study of the weather conditions during the Exposition period may be of interest at this point. It is made up from the records of the Weather Bureau. The mean temperature of May, 1901, was 54°, the coldest in four years, while the precipitation was 3.28, which made it the wettest May in seven years. In June, the mean temperature was 54°, which made it the coldest June in the history of the Weather Bureau in 30 years, while the precipitation was that for the preceding month, making it the wettest June in seven years. From this there was an abrupt change to reverse conditions. The mean temperature for July was 74°, which was only equalled during the past 30 years by two other Julies, while the precipitation was 3.05. August also was warm, but with a light rainfall, which made altogether a beautiful month. September was quite wet during the middle of the month, and its temperature seemed above normal. October proved to be the coldest October in five years, with a mean temperature of 53°. During the fair period of 1901, there were 68 wet days. During the previous year and the same period there were 59 wet days. Briefly summed up, the Exposition furnished

us with weather to which quite appropriately Mr. Cuthbertson has applied the terms "rainy, raw, chilly, hot, cold and cloudy", with a notable infrequency of clear days, all which had its effect in discouraging and disheartening would-be visitors to the fair.

If it were the place, a number of things might be said pertaining to the humorous side of the situation. People persisted in mistaking us for a free drug store and trying to get all sorts of prescriptions filled without expense to themselves. They also came in on all sorts of absurd errands, even occasionally soliciting baths. One night when I was at the hospital a negro came in from "Darkest Africa," and, with the utmost seriousness, demanded a dose of poison. As nearly as we could gather from him, this was intended for one of his confrères in the Negro Village with whom he had had a quarrel, and he announced that it was his intention to give him poison rather than club him or stab him, because he thought a natural sort of death would attract less attention than a more conspicuous homicidal attempt.

Of course, by all means the most important work of the medical bureau was connected with the Presidential tragedy, about which so much has already been said that it does not seem necessary to more than allude to it here as part of the work of the bureau. Had it not been for the existence upon the grounds of such a hospital as we had, ready for any such event, it would not have been possible to give the President the advantage of such prompt intervention as that which was afforded. As it was, I have often repeated the remark, which I made during that sad week to numerous members of the government, that "because of what we had provided upon the grounds *the President was not deprived of the benefits of private citizenship*," as he would have been under most other circumstances. The existence of the hospital and the workings of the medical bureau were certainly justified at this time beyond all expectations or desire.

I ought not to close this report of the workings of the Medical Department without, both gracefully and gratefully, acknowledgments, first to the Directors, the Director-General and the Director of Works, to whom I never appealed in vain, and, secondly, to my assistants and staff of helpers, all of whom rendered most cheerful and most effective assistance. Dr. Kenerson was of greatest service, especially during the organisation period, when his readiness and skill in managing details appeared to best possible advantage. To him and to Dr. Wilson, whose services I have already mentioned, I feel very greatly indebted. To the members of the hospital staff, especially to Dr. Zittel, I feel that

very much credit is due, and to the nursing staff who served throughout with zeal and fidelity, I feel particularly grateful. For over a year Miss Walters managed the details of the nursing, as well as of household cares, with rare tact and faithfulness, and it would be unfair not to comment most favorably at this point on her work. One and all, however, assisted, each to the best of his or her ability, and the result was a department of which, as the Director-General said, there had been and could be no complaint.

510 DELAWARE AVENUE.

CLINICAL REPORT.

Removal of Two Large Pus Tubes.

By L. G. HANLEY, M. D., Buffalo, N. Y.,
Gynecologist to the Buffalo Hospital of the Sisters of Charity.

REPORTED BY CHARLES BANTA, M. D., Interne.

Miss G., age 23; admitted to hospital, May 27, 1901. Age at first menstruation, 14. Family history good; father and mother living; sisters and brothers healthy. Has always been



PUS TUBES—HANLEY.

regular—menstrual period lasting four days,—no pain and in every respect normal; occurring every twenty-eight days until two years ago, when she received an injury while riding a wheel. She ran into a wagon, striking her abdomen against the vehicle. There has never been any history of leucorrhea or any discharge from vagina or dysmenorrhea prior to the injury or after it.

Menstruation ceased for ten weeks after the injury, when she had a severe attack of hemorrhage, accompanied by pain and convulsions.

The attacks of spasm and dyspnea would occur at various intervals, sometimes coming on every two weeks and lasting three or four days with four or five convulsions during twenty four hours. She had been informed she had an ovarian cyst and was referred to Dr. Hanley for operation. Patient was prepared for section and on opening the abdomen, examination revealed the presence of two large pus tubes, one measuring six inches long, by three and a half inches thick, the other five inches long and three inches thick, bound by cord-like ligamentous adhesions, both fimbriæ were occluded, both ovaries contained in both masses, the left tube and ovary being attached to the sigmoid. Each mass was removed through an incision three inches long, being drawn out by their long axis. Each tube was examined microscopically. No bacteria and no gonococci found. There was an imperforate hymen and no history of exposure to infection.

This appears as rather a rare case. The patient left the hospital in twenty-one days. She was seen two weeks ago and has gained in weight, feels well, and has had no trouble since the operation.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

Section on Pathology, October 15, 1901.

REPORTED BY IRVING P. LYON, M. D., Secretary.

This Section held its regular monthly meeting at the Academy rooms, Buffalo Public Library Building, Tuesday, October 15, 1901. Dr. GROVER W. WENDE, chairman, presiding.

The following papers were presented: The present status of our knowledge concerning the innervation of the heart, by FREDERICK C. BUSCH; and, Vegetating dermatitis developing during the course of infantile eczema, by HERMAN K. DEGROAT and GROVER W. WENDE.

The lesions of this condition consist of pustulo-papules, upon which as a foundation a benign hypertrophy rapidly develops, resulting in a papillomatous, vegetating growth. They also reviewed other similar cases found in literature.

These papers were discussed by Drs. Williams, Van Peyma, Benedict and Lyon.

Members present, 26.

Section on Pathology, November 19, 1901.

REPORTED BY IRVING P. LYON, M. D., Secretary.

Tuesday, November 19, 1901, at 8.30 p.m., Dr. GROVER W. WENDE, chairman, presiding.

The essayist was Dr. LEWELLYS F. BARKER, professor of anatomy, University of Chicago, whose subject was, The unveiling of the cell.

The paper was discussed by Drs. Allen A. Jones, Williams, Howe, Busch, Barrows, Blaauw, Clewes, Howell, Gaylord and Lyon.

Dr. Barker's paper will appear in a subsequent issue of the JOURNAL.

Members present, 58.

Roswell Park Medical Club.

REPORTED BY GEORGE F. COTT, M. D., Secretary.

Monday, November 4, 1901.

PRESENTATION OF CASES.—SARCOMA OF KIDNEY.

Dr. BAGLEY.—A little girl two years old, very sick, some temperature, distended abdomen, rapid pulse, abdominal veins prominent, everything indicative of tubercular condition. Dr. Kenerson resected two ribs but could not satisfy himself as to condition within. Suspected tumor of the pleura. Child was taken home; did not improve and laparotomy was performed. Found large sarcoma of left kidney. Death occurred soon afterward.

NEW SYMPTOM IN APPENDICITIS.

Dr. GIBSON.—A peculiar symptom occurring in appendicitis. Patient young woman between 20 and 30. Most prominent and persistent symptom and which among others was pain in the region of the knee. She was treated by two doctors for diseases of the knee; did not improve. A surgeon manipulated the abdomen and found a tumor in location of the appendix. Appropriate treatment afforded complete relief. He ascribed the localisation of the pain to pressure on the filaments of the anterior crural nerve, which arises from the 2d, 3d and 4th lumbar segments and which furnish filaments to anterior femoral region or branch to knee joint.

CATHETER PENETRATING WALL OF UTERUS.

Dr. KRAUSE.—Woman aborted herself at second month with catheter. Bled nearly three months; miscarried at the fifth.

Everything went on well until seven weeks after miscarriage, when I was called on account of vomiting. Had been troubled since miscarriage by constipation; now greatly relieved. Vomiting nearly ceased in about twenty-four hours; in another twenty-four became more persistent, tympanites appeared; no movement of bowels. Diagnosis of obstruction. Operation revealed an adhesion between omentum and uterus where catheter had penetrated the wall. Patient confessed abortion. Recovered.

Dr. WENDE.—Reported the case of a young woman who aborted herself with soft catheter and lost it. Thought she passed it through the uterus and began to vomit. Operation per vaginam, but nothing found. Girl died. No post mortem.

New York Medical Jurisprudence Society.

Stated Meeting, December 9, 1901.

COMMERCIALISM AND RESPONSIBILITY IN CONNECTION WITH ANTITOXIN AND VACCINE VIRUS.

THE paper of the evening above-named was delivered by Dr. W. R. Inge Dalton in which he criticised the system employed by the Board of Health in the manufacture and distribution of antitoxin sera and vaccine virus. In part he said:

Deplorable as is the loss of life which has occurred in St. Louis, Camden, Cleveland, Atlantic City, and elsewhere from the use of impure antitoxin and from tetanus following vaccination, there is something infinitely more to be regretted, and which gives vastly more cause for alarm, and that is the distrust which has thus been engendered in vaccination and antidiphtheritic serum, two of the greatest life-saving agencies which medical men have at their command.

There is no exaggeration in the statement of one of our leading medical journals, that the deaths in St. Louis sink into positive insignificance compared with the untold thousands of avoidable diphtheria deaths which will inevitably follow, unless members of the medical profession demand a guaranteed purity of antitoxin, and are thus enabled to speak with the confidence of definite knowledge and so inspire the anxious parents with their own confidence.

And in regard to smallpox, the evils to be apprehended are even greater. With what ill-concealed delight will not the unfortunate accidents be made use of by the fanatical opponents of vaccination? What unscrupulous use may we not expect to have made of them by charlatans of every kind?

Upon whom then must the responsibility be placed for these various fatalities? Evidently, on one of three classes,—the manufacturers of the antitoxin and vaccine virus, the physicians, or the parents or guardians of the unfortunate victims.

In regard to the deaths from tetanus following the use of antitoxin at St. Louis, the coroner's jury has spoken with no uncertain voice. Negligence upon the part of the health department in the preparation of the said diphtheria antitoxin and in the issuance thereof is given as the cause of the frightful mortality.

Nor was it one careless act alone, or the mistake of a single individual, that led to the fatalities. The whole system on which the board has been in the habit of producing antitoxin seems to have been unscientific, and in all respects bad.

Far from there being any reason for boards of health engaging in such industries, all considerations of an economical and sociological as well as of a hygienic and scientific character, point to the fact that it would be infinitely better for them to confine themselves to their own duties.

Surely, in this way they would serve a higher purpose than by each of them setting up his own poorly equipped laboratory, and seeking to compete with manufacturing houses, which have millions invested in their plants and which are compelled by a healthy regard for their own interests to adopt every conceivable precaution, to prevent anything but the most perfect material being sent out under their label.

Dr. Dalton then turned to the system in vogue in New York, and cited from the testimony of Dr. John B. Crosby, given before the Mazet committee, at Albany, in 1899, to prove that inferior antitoxin manufactured by the board of health, had been sold to Chicago at reduced rates, and concluded with a vigorous attack upon the sanitary conditions of the board of health stables, where are kept the animals from which the serum is drawn.

Dr. Dalton's paper precipitated a heated discussion, some of the more important points are as follows: Dr. Love, in the course of his remarks, drew particular attention to the potency of certain brands of virus, particularly that of the board of health in producing suppurating wounds which predisposed to more serious septic infection. Alluding to the remarks of some of the speakers, "that the vaccine virus manufactured by a certain reputable pharmaceutical house was not so effective in producing vaccinia as the virus of the board of health," Dr. Love said that the so-called milder virus always produced typical vaccine vesicles in infants, and though the same result was not always obtained after single operation on adults, he thought that true vaccinia followed at least quite as frequently after vaccination with the so-called milder virus, as after the use of the brands

which if they produced typical vesicles they obscured the diagnosis of vaccinia, in many instances, by the production of septic wounds.

Dr. Daniel Lewis whose remarks were characterised by a tone of justice and candor, said: It is customary among physicians to neglect their vaccinated patients. If therefore, this episode,—the deaths of persons in Camden, St. Louis and elsewhere from tetanus,—should serve to bring us to our senses, we shall have profited by an occurrence which, in its essence, is ephemeral and inconclusive.

Dr. Lewis did not think it was within the province of boards of health to manufacture vaccine virus or sera for the purpose of selling it, and, as State Health Commissioner, he said that though the state owned an antitoxin plant for experimental purposes they did not prepare any serum for the market.

The city Health Commissioner, Dr. Wm. T. Jenkins came in just as the discussion was closing and at the request of the chairman made a few impromptu remarks in which he discounted the sale of sera and virus by the board of health.

ABSTRACTS.

SALT STARVATION IN THE BROMIDE TREATMENT OF EPILEPSY.

DR. A. PIERCE CLARK, Sonyea, N. Y., in a paper read at the meeting of the Medical Association of Central New York, during its recent meeting at Buffalo, said: Hypochlorisation or salt starvation, as applied to the epileptic dietary, was introduced by Toulouse and Richet in 1899, and has since been successfully used in this country and abroad. Its rationale is that bromine forms a more stable compound in the tissues previously starved by the withdrawal of chlorine, by reducing the amount of table salt ingested.

Under hypochlorisation the daily dosage of bromides may be reduced one-half as well as the chance of bromide intoxication. Then if bromine in the form of bromipin (10 per cent. solution in oil sessanum) is used instead of the bromide salts gastro-intestinal irritation, constipation and bromic ache are abolished more or less entirely.

It is especially recommended in all chronic cases in which bromides, even in high dosage, have failed, and in those altogether intractable to the bromides. In those of poor physique the

nutrient emulsion of bromine or bromipin is of advantage combined with the hypochlorisation diet.

Dr. Clark proposed the following sample dietary for carrying out salt starvation treatment in connection with bromides or bromipin: Breakfast—Oatmeal or any other cereal; one pint of milk; bread or toast; potatoes, baked, creamed or boiled; ripe or stewed fruit; eggs, soft boiled, scrambled or poached. Dinner—Vegetable soup strained, bouillon, mutton or chicken broth, oyster soup; beef or mutton, chicken or turkey roasted; tomatoes, vegetable oysters, potatoes, corn, string beans, lettuce, asparagus, spinach; fresh fruits, ice cream or water ices. Supper—One pint milk; milk or dry toast; potatoes creamed or baked; stewed fruit; eggs poached, soft boiled or scrambled; rice.

No salt is to be used on the food or in cooking. Two slices of bread can be eaten with each meal. The fruits should be apples, prunes, peaches, oranges, grape fruit, pears, grapes.

EMULSION BROMIPIN

R	Acacia		℥iii.
	Bromipin (Merck)		℥xvi.
	Syrup simplex		℥iv.
	Ol. gaultheria		℥i.
	Aqua, q. s. ad.		℥xxxii.
	Ft. emulsion.		

Sig.—Two teaspoonfuls, increasing to one ounce as desired, three times a day.

One teaspoonful = Bromine gr. iv.

RECTAL FEEDING AFTER ABDOMINAL OPERATIONS.

HERRICK, J. B. (*Chicago Medical Recorder*) and WATSON, L.H. (*Medical Review of Reviews*) hold that much of the success of abdominal surgery at the present day is attributable to the great care bestowed in the preparation of the patient for operation and the after-treatment. As in many instances the nutrition is more or less seriously impaired, the question of alimentation assumes great importance in the after-management of the case. After operations upon the stomach and intestinal tract it may be, and often is, hazardous to feed the patient by mouth for some time and rectal feeding becomes indispensable. In selecting foods for nutritive enemata the point to be borne in mind is that the mucous membrane of the lower portion of the intestinal canal has but little digestive power, and hence the nourishment must be presented in such form that it can be easily absorbed. Another

point is that the mucous membrane of the lower bowel soon becomes irritable unless the nutritive material is perfectly bland and also in such condensed state as to leave behind no residue to decompose and act as an irritant. Physiological experiments have shown that when albuminous material is transformed into albumoses it is absorbed almost immediately without requiring any preliminary digestion, and after being taken up into the circulation is rapidly reconverted into serum albumin. For this reason the albumoses are well adapted for rectal feeding, and according to the observations of Dr. J. B. Herrick, of Chicago and of Dr. L. H. Watson, of Chicago, somatose, which is a pure preparation of albumoses, is an excellent nutrient for this purpose. It may be administered alone in solution, or in connection with other foods, such as milk and white of egg.

In the article on Rectal alimentation, referred to, Dr. Watson recommends that the bowels should be emptied by a preliminary laxative or cleansing injection before administering the nutritive enema. The enema should be given at regular intervals through a soft rubber tube, and should be inserted rather high into the rectum. The amount should not exceed four or five ounces. As soon as the gastric disturbances subside the patient may be given small quantities of food by mouth, gradually diminishing the number of rectal enemas.

TREATMENT OF SYPHILIS AND THE PROPER METHOD OF ADMINISTERING MERCURY.

DR. WINFIELD AYRES, of Bellevue Hospital, New York, writes on this subject, (*The Lancet*, London, October 19, 1901,) in which after reviewing the various methods heretofore in use for the administration of mercury in the treatment of syphilis, he pronounces unqualifiedly in favor of mercuriol, a nucleid of mercury containing 10 per cent, of the metallic element. This form of mercury it will be remembered was introduced by Dr. Carl Schwickerath, of Bonn. His reasons for arriving at this conclusion are, that after conducting a long series of experiments, he finds that mercuriol can be given continuously for an unlimited period of time without producing gastric or intestinal disturbance.

Reviewing the methods of administration hitherto in use, Dr. Ayres said in brief: Of the drugs that are frequently used in the treatment of syphilis, I regard blue ointment as of the most value. After it I would place mercuriol, bichloride, proto-

iodide, tannate, blue mass, grey powder, biniodide, fumigations, inhalations, and for extreme cases hypodermic injections of mercury. The unguentum hydrargyri comes to us in the form of metallic mercury minutely subdivided, and it is absorbed directly into the blood as such. A serious objection, however, to administering this form of mercury is that it is extremely nasty, and therefore very few patients can be induced to continue it for any length of time. Of internal preparations, those which are most used are protoiodide and tannate. We apparently get good results in about a third of the cases treated with these preparations; but in the remainder the results are very apt to be disappointing. Everything is frequently found to go well up to a certain point. Then gastro-enteritis sets in, the patient becomes very anemic and generally run down, and a change has to be made to some other medicine. Then we have bichloride. It is very reliable,—much more so than grey powder or protoiodide,—but it causes gastric irritation in a certain number of cases, and it has to be given up and some other preparation substituted.

Dr. Ayres adopts the theory that “in order to exercise its antisyphilitic influence free mercury must circulate in the blood in minutely divided particles.” It is known that metallic mercury is not a gastro-intestinal irritant either before its absorption into the blood, or during its excretion; for instance, there is no irritation during its excretion after inunction. It is probable then that mercuriol owes its superiority to the fact that its nuclein is not a foreign element, and that therefore no disturbance results from it during the excretion of its constituents.

It is well known that mercury in its pure state has no germicidal properties. We also know that it accumulates—probably by being deposited in the protoplasmic cells in its native state. It has been suggested therefore that the mercury in mercuriol is incorporated more readily on account of its association with nuclein which brings it into intimate relation with the cell structures during the process of assimilation, and mercuriol probably exerts its influence in some physical way. This theory is at least suggested by clinical experience, for mercuriol controls the secondary symptoms of syphilis more readily than any other preparation of mercury and that when given in doses containing smaller quantities of the metal. It is moreover important, as already noticed, that when thus administered, the antisyphilitic remedy causes no gastric intestinal irritation.

TREATMENT OF NASAL CATARRH BY THE GENERAL PRACTITIONER. EUGENE C. UNDERWOOD (*St. Louis Medical and Surgical Journal*, July, 1901,) says: I have long entertained the view that the general medical practitioner neglects to treat his patients for catarrh and sends them to a specialist when he could successfully manage these himself. In fact, the treatment of catarrh is very simple and the results which follow correct and systematic treatment are very satisfactory. In practice, two forms of chronic nasal catarrh are met. These are hypertrophic rhinitis and atrophic rhinitis.

The hypertrophic form is more generally seen, and is characterised by a thick mucus discharge from the nose, great liability to colds, obstruction of one or both nostrils, which force the patient to breathe through his mouth, nasal intonation of the voice. There is more or less headache and the sense of smell is lost or impaired. There is dryness of the throat, deafness and other symptoms showing the extension of the disease to neighboring organs. Exostosis of the osseous structures often is seen.

Atrophic rhinitis (ozena) is characterised by a sense of dryness in the nose and throat, a thick, purulent discharge and the expulsion of discolored crusts and an offensive putrid odor. The sense of smell is impaired and the patient is weak and anemic. The mucous membrane is dry and glazed, but in advanced cases ulceration and necrosis are present. The treatment consists of applications directly to the diseased area and the administration of such internal remedies as will correct any coëxisting disease or morbid state. In some cases where there is occlusion by exostosis the resources of surgery must be invoked.

Let me examine more in detail the treatment of the types of nasal catarrh. In simple chronic hypertrophic rhinitis the results of treatment will be most flattering. In a case attended with no constitutional disease nothing is necessary beyond having the patient spray the nasal mucous surface with a solution composed of equal parts of water and hydrozone every three hours.

If the case has persisted some time and the patient has an amount of mucus discharge, I have him take twenty drops of balsam of copaiba four times daily. The hydrozone is not only a disinfectant and germicide, but its curative action on the inflamed mucous membranes is speedy and is not equaled by any other drug I have ever used. When the patient is anemic I have him take iron, and any other drug is used when it is called for by any associated disease or morbid condition, but the hydrozone spray is used in all cases.

In the atrophic variety we shall have to use the same local application. The hydrozone at once overcomes the offensive odor and takes off the purulent crusts. These cases must be treated with cod liver oil, iron and such other remedies as will bring up the general health. Here are a few clinical histories:

Mr. R. H. M., age 60, had been a sufferer for two years. There was no exostosis, but when he had a cold he could breathe only through his mouth. He was in good general health, so I had him buy an atomiser and use a spray composed of equal parts of distilled water and hydrozone. He sprayed the mucous surface of the nose every three hours. On this he made rapid improvement and in three weeks had no further symptoms.

S. M. T., age 18, had chronic hypertrophic nasal catarrh in which the mucus discharge was very abundant, and this was associated with dryness of the throat and constant desire to hawk and spit. She used the hydrozone and water spray, and took fifteen drops of balsam copaiba three times daily. I had the pleasure of seeing this young woman go along to complete recovery in a period of six weeks.

Mrs. R. J. C., age 49. This lady had atrophic rhinitis and as soon as she came near you the putrid odor asserted itself. Her general health was lowered. I had her use the hydrozone and water spray and take cod liver oil internally. She spent last winter in Cuba, and has just gotten home greatly improved in general health and her catarrhal disease is better. She says the spray effectually destroys the disgusting odor and that scarcely any discharge now appears.

CORRESPONDENCE.

Parke, Davis & Company's Vaccine Virus.

Editor Buffalo Medical Journal:

SIR—We respectfully ask you to apprise your readers, on the faith of our positive assurance, that not one of the recent tetanus fatalities following vaccination at Camden, Atlantic City, Bristol, Brooklyn, Cleveland and St. John, N.B., succeeded the employment of our vaccine virus. In not a single, solitary one of these cases was our vaccine used. We incriminate no one's vaccine, but we propose to assert the truth about our own. If we can prevent it, no physician or pharmacist shall labor under the false impression that a fatality has ever followed, either by coincidence or by cause and effect, the application of vaccine virus or serum bearing our name.

PARKE, DAVIS & CO.

DETROIT, December 5, 1901.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

All communications, whether of a literary or business nature, books for review and exchanges should be addressed to the editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XLI.—LVII. JANUARY, 1902.

No. 6.

Union of Medical Societies in New York.

AT THE regular monthly meeting of the Medical Society of the County of New York, held Monday, December 2, 1901, Dr. Frank Van Fleet, the newly inaugurated president, in his address recommended that some steps be taken toward resumption of relationship with the American Medical Association.

In pursuance of this suggestion Dr. D. B. St. John Roosa offered the following:

Resolved, That the president of the Medical Society of the County of New York appoint a committee of five, provided a similar committee be named by the New York County Medical Association, to confer with that body with reference to a union of the two organisations; and that this committee be requested to report to the society, at a stated meeting in January, 1902, or sooner, in order that this society may, if desirable make a recommendation to the Medical Society of the State of New York at its annual meeting.

The foundation is therefore being laid for a restoration of good fellowship between the profession of the state of New York and the National Medical Association. We had intended to make extended comment on the subject but some of our contemporaries have already discussed it quite fully. Among them *American Medicine* in its issue of December 14, 1901. This representative journal has presented the case so completely and in so much better light than we could, that we venture to present the entire article:

MEDICAL REUNION FOR NEW YORK.

At the last regular meeting of the Medical Society of the County of New York, the air was full of suggestions as to the

necessity for reunion and harmony among the members of the profession in New York State. The New York County Society is perhaps the oldest regular medical organisation in the country. To its initiative is due the New York State Medical Society, which was largely instrumental in the formation of the American Medical Association. Unfortunately, for some fifteen years the Medical Society of the County of New York and the State Society have not been in affiliation with the National Medical Association. The cause of the retirement of the New York State Society and its dependent organisations from the National Association was a difference of opinion as to the application of certain principles of the code of ethics.

At the November meeting of the New York County Society, the retiring president, Dr. George R. Fowler, spoke of the eminent desirability of reconciliation between the two regular medical organisations at present existent in New York County and State. The newly elected president, Dr. Frank Van Fleet, dwelt on the benefits of reunion. These would accrue not only to New York, but also to the whole country, for if the medical influence of the Empire State was concentrated instead of divided as at present, the medical profession would be a much more important factor for the accomplishment of state and national medical purposes. The new president considers that the present medical organisations should be ready to make any sacrifices consistent with honor to bring about professional reunion.

Dr. St. John Roosa then moved that a committee of five be appointed to confer with a similar committee from the County Medical Association for the purpose of arranging, if possible, the details of some method by which harmony and union could be brought about between the two county, and eventually also the state, organisations. The report of this committee it is hoped will be in shape to present some definite scheme of union at the next annual meeting of the Medical Society of the state, which takes place at Albany at the beginning of February, 1902.

This professional disunion has been the one serious rift in the lute of medical harmony in this country. Let us hope then that the first actual step toward reunion has been taken by the recent action of the County Society. There is not a member of the American Medical Association who has its interests at heart who would not welcome the news that the New York split was a thing of the past. Serious principles are supposed by many to be involved in the disunion. If we may trust the last president of the American Medical Association disunion was due rather to misconception than to absolute differences on principles. In his presidential address at St. Paul, Dr. Reed said:

This action (the opprobrious excommunication for the time being of the entire profession of the great Empire State) viewed impartially after the lapse of twenty years becomes the more extraordinary when it is observed that similar action was never taken with regard to Massachusetts, or Rhode Island or Mississippi, the societies of neither of which had ever adopted prescribed rules of con-

duct; nor with regard to California or Illinois or Colorado, each of which had by overt act if not by open declaration so far as this rule is concerned at least taken an equally nonconformist position.

Dr. Reed goes on to say that today there are forty-eight states or territorial licensing boards, most of them being composed of both the regular and sectarian schools of practice. The laws of the different states are of varying efficiency, the one procured by the Medical Society of the State of New York "at the price of yet maintained excommunication from this body, standing today as the model of excellence for the entire country." Yet it was practically for the assertion of its right to encourage such legislation that New York was voted out of the American Medical Association.

With regard to the merits of the question as to the code of ethics, Dr. Reed said further:

The committee on reorganisation (of the American Medical Association) under the restrictions of the resolution creating it has very properly left undisturbed the existing rules of conduct. These, if construed to have a fundamental importance and if vigorously enforced as they now stand, would disintegrate the association in a single day. This reason and others already given confirm me in the conviction that such rules should be either amended or abrogated. Or if reaffirmed it should be by general resolution endorsing their underlying principles, but disclaiming the present applicability of their details.

After such frank official declarations it would seem that there was ample room in the generous bosom of the mother association for all her sons from New York. We sincerely hope that the committee who meet for the preliminary discussion of the subject of union will realize fully the eminent desirability of complete medical union. Surely no trivial objections or personal feeling should be allowed to delay the fulfilment of so important a desideratum. There is a responsibility in the matter, not alone to local organisations but to the American Medical Association and to the profession of the whole country.

The foregoing is a comprehensive and just review of the situation, by an impartial observer looking on from a distance, yet, nevertheless, competent to estimate the disgrace of the present chaotic condition, and the importance of reuniting the disintegrated profession in this state, as well as the influence it will have on the medical affairs of the country.

It is high time the scandalous condition entailed by rival societies should cease.

No high-minded man, even to gratify personal ambition, will adopt obstructive tactics to even delay the prospective reuniting of these opposing and too long estranged forces. We hope the good sense of the leaders will enable them to reach a satisfactory conclusion promptly, and that the next meeting of the American

Medical Association, to be held at Saratoga, in June, 1902, will witness the welding of the links in the chain of professional brotherhood that were broken at St. Paul just twenty years before.

Since the foregoing was put into type the *Medical News* of December 21, has appeared with its second editorial article on the importance of reconciliation between the Society and the Association. The *News* take a comprehensive and liberal view of the subject in both articles, and in the latter says:

It is evident, then, since at last there has come to both parties the realisation of the misconception that caused disunion that we may look for a speedy reconciliation. The Medical Society of the State of New York deserves the most respectful consideration if it shows a willingness to enter the fold of the National Association from which, by an unfortunate misunderstanding rather than any clash of principles, it has been so long excluded.

If the spirit manifested in the *News's* paragraph above quoted should characterise the Association conferees, the reunion is as good as accomplished.

Medical Department Pan-American Exposition.

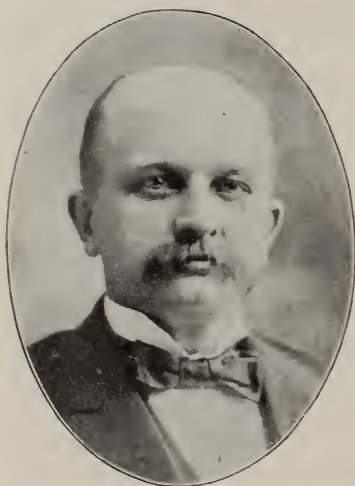
A YEAR ago—January, 1901—we presented to our readers a very complete illustrated description of the great fair to open in Buffalo, May 1, 1901, and to continue for six months. From time to time during the year just ended we have published such material, reports, and items as we deemed of special interest to readers of the JOURNAL. Elsewhere in this issue will be found the comprehensive report of Dr. Roswell Park, Medical Director of the Exposition, which is a befitting finale to the literature pertaining to the fair,—the last we expect to print.

We take pleasure in publishing this report because (1) it will be found interesting reading as are all of Dr. Park's writings; (2) it is a most creditable history of a great medical supervision conducted at a minimum of cost in life and money; (3) its unsolicited and unrestricted use was offered primarily to the JOURNAL (too often such reports first appear in the newspapers); and (4) it is the one bright spot in the conduct of the exposition,—a department in which there was no scandal, but only unremitting attention to duty, with scientific application, and with splendid results.

In reading this report one cannot but be impressed with its simplicity and completeness, and also with the wisdom of the Medical Director in establishing, even against great opposition, an admirable hospital, completely equipped, and that the entire medical control of hospital and sanitary affairs of the exposition was merged in a single executive.

Buffalo's New Health Commissioner.

DR. WALTER DAVID GREENE, of Buffalo, was designated as Commissioner of Health by Mayor-elect Knight on or about December 1, 1901, to take office January 1, 1902, vice Dr.



WALTER DAVID GREENE, M. D.

Ernest Wende, whose term has expired. The JOURNAL extends to Dr. Greene its congratulations and can offer him no better token of our interest in his successful administration of the office, than to wish he may prove as efficient as his predecessor and maintain the high standard that has been established by him. This does not mean that there is no room for improvement,—this is a progressive age, and improvement should be the watchword of every public officer,—and we have confidence in Dr. Greene's ability and desire to take advantage of every opportunity to increase the

efficiency of his department. If he should prove a better health officer than Dr. Wende, we feel sure no one would be more pleased than the rugged and sturdy veteran who now lays off the mantle of office.

Dr. Greene was born in Starksboro, Vt., April 20, 1853, and received his preliminary education in the public schools in that vicinity, later teaching in those schools in intervals between his four years of intermediate education at Union Springs, N. Y., at a school now known as the Friends' School. After leaving school he obtained a position on the Dutchess & Columbia Railroad, which is now a part of the Harlem division of the New

York Central Railroad, where he served as ticket agent and telegrapher.

In the fall of 1873 he came to Buffalo and commenced the study of medicine. Soon afterward he entered the medical department of the University of Buffalo, and was graduated February 23, 1876. After graduation he was appointed interne at the Rochester City Hospital, where he remained for a year and a half, and then began the practice of medicine in Mendon, N.Y. He practised there from 1877 to 1880 and then came to Buffalo. Two years later he was appointed a district physician, serving from 1882 to 1889, and then was appointed health physician. He served as chief officer of the Health Department until the end of 1891, when the department was reorganised under the new charter.

Five years later—namely, January 1, 1897, he was appointed Deputy Commissioner of Health, from which he is now promoted to Commissioner.

Dr. Greene taught hygiene and sanitary science in the Niagara University, which is now a part of the University of Buffalo. He now has a chair in that University, being clinical professor of diseases of the kidneys and bladder. He is attending surgeon at the Sisters of Charity Hospital and also at the Erie County Hospital. He is a member of the Medical Society of the County of Erie, of the Medical Union, of the Medical Society of the State of New York and the American Public Health Association.

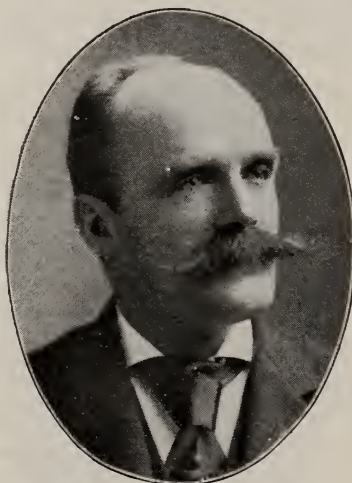
It would thus appear that Dr. Greene has served as district physician seven years, as health physician two years, and as deputy commissioner of health five years, making fourteen years in all, and this experience must certainly prove of value to him in the office to which he has been appointed.

Dr. Wende's Retirement from Office.

DR. ERNEST WENDE, who has held the office of Commissioner of Health for the City of Buffalo for ten years retired therefrom January 1, 1902. He was appointed first by Mayor Bishop, a democrat, for five years, beginning January 1, 1892, and second by Mayor Jewett, a republican, for another term of five years, beginning January 1, 1897. Mayor Knight, also a republican, declined to reappoint him for a third term, so he goes back to practise and teach the specialty of dermatology,

in which he has already made for himself a conspicuous reputation.

Dr. Wende's reputation as a fearless and scientific health officer is a household word in Buffalo, and he is known abroad for the many methods he originated, and which made this city famous for its low death-rate, as well as its comparative freedom from epidemic disease. These methods are so well known that it is unnecessary to repeat them here, but they may be classed as having brought a maximum of results with a minimum of expenditure.



ERNEST WENDE, M. D.

The leading medical journals throughout the country have made extended comments upon the principle of keeping the health department of municipalities separated from politics, deploring the action of Buffalo's Mayor-elect in refusing to reappoint Dr. Wende, and otherwise making strenuous effort to draw the line between officials that strive to promote health and prevent disease, and other officers, and to prevent their falling a prey to the greed of the spoilsman of whatsoever party. We have not space to print even excerpts in this issue. They make

interesting reading, however, and we commend them to the party managers.

Dr. Wende retires with the best wishes of his professional confrères of whatsoever party or sect, and in the consciousness of a duty faithfully performed; and these, after all, are better than further service to a thankless community, and is a reward more lasting than gold.

A Boarding Hospital.

THE attention of physicians and others interested is invited to the fact that Miss M. S. Campbell, late of Welcome Hall, and Mrs. A. G. Goodwin, late of the Buffalo General Hospital, have opened a house at No. 50 Allen Street, where

out-of-town patients can be received and cared for while under the treatment of Buffalo physicians. Diets will be especially provided for and vapor baths, and the like, included in the price of board and room, which will be from \$20 to \$25 a week. Friends of patients in hospitals can also be received when there are vacant rooms. Board without treatment will be \$12 a week, or for two in one room, \$10. Should a friend desire to remain with the patient, the extra charge will be \$10 a week. Orders will also be received for diets, such as broths, beef juice, modified milk, wine jelly, and the like. These will be prepared as ordered and delivered at the home of the patient.

The JOURNAL is pleased to direct the attention of physicians in this vicinity to this institution, which may be called with appropriateness a boarding hospital. The women who are conducting it are well known and perfectly trustworthy. Physicians, patients and their friends may feel sure of courteous and faithful attention.

PERSONAL.

DR. NELSON H. HENRY, of New York, who has represented the 5th District in the Assembly for the past three years has been appointed by Governor Odell to be Adjutant General of the National Guard. His connection with the National Guard dates from 1883. He is now chief surgeon on the staff of Gen. Roe with the rank of colonel. He served as a division surgeon during the Spanish War in the camps of Tampa, Fla., and Huntsville, Ala. Dr. Henry, who now assumes the title of general, is an able officer and his appointment is received with favor by the guard.

DR. HARVEY R. GAYLORD, of Buffalo, has accepted an invitation to become one of the associate editors of the JOURNAL. Dr. Gaylord's accomplishments are well known. He is professor of surgical pathology at the University of Buffalo, pathologist at the State Laboratory, and attending surgeon at the Erie County Hospital. The JOURNAL regards his addition to the staff with great satisfaction, and we feel sure its readers will look upon it with equal favor.

DR. B. H. DAGGETT, of Buffalo, contributes to the current number of the Girard (Pa.) *Cosmopolite*, an article on the Pan-

American police force. As chief examiner of applicants for appointment to police duty at the Exposition, Dr. Daggett had an experience full of striking incidents, some of which were amusing. There were 4,700 applicants from all parts of the United States. Of these 1,278 appeared and were examined, 350 of whom passed to the eligible list. The article is one of interest.

DR. JOHN W. RILEY, U. of B., '01, who has been house surgeon of the Emergency Hospital for the past eight months, resigned to take effect January 1, 1902. He will open an office at Eagle and Cedar Streets, for the practice of his profession. He was at the Fitch Hospital for two years before graduation and has had much surgical experience.

DR. ROBERT E. DORAN, formerly of Buffalo, and now a member of the staff of the Willard State Hospital, has been appointed first assistant physician at the Craig Colony for epileptics, Sonyea, N.Y.

DR. NELSON W. WILSON, of Buffalo, has removed his office to 49 Niagara Street. His residence remains at 153 Seventh Street. Hours: 10-12 and 4-6. Telephone, Seneca, 76.

DR. W. J. O'DONNELL, of Buffalo, has received an appointment to the staff of St. Mary's Maternity Hospital on Edward Street. His duties there began December 1, 1901.

DR. GEORGE F. MILLS, of Buffalo, has been appointed junior physician of the Manhattan State Hospital.

OBITUARY.

SIR WILLIAM MACCORMAC, Bart., president of the Royal College of Surgeons, died suddenly from heart disease at Bath, December 4, 1901. He was born in Belfast in 1836, his father, Dr. Henry MacCormac, also being a physician. He received his education in Belfast, Dublin, and Paris. After making a reputation as a surgeon in the hospitals of the United Kingdom and winning the gold medal of the Queen's University he saw service at Metz and Sedan in the Franco-German War as Surgeon-in-Chief of the Anglo-American ambulance, and also during the Turko-Servian War, in 1876. For twenty years he was one of the senior surgeons and lecturer at St. Thomas's Hospital, as well as consulting surgeon and examiner in many other institutions.

In consideration of his services as secretary general of the International Medical Congress, held in London in 1881, he was knighted by the Queen. In 1897, at the Queen's Jubilee, he was made a baronet and appointed surgeon-in-ordinary to the Prince of Wales, whom he attended when suffering from the effects of an accident. He also has been honored by many foreign governments. When the Boer war broke out he went with the British Army to Africa as consulting civil surgeon, and was present during the early fighting in Natal. He was the author of a great number of treatises on various subjects, most of which were contributed to different medical journals or societies. Among these may be mentioned: Surgical operations, Antiseptic surgery, Notes and recollections of an ambulance surgeon. In 1899 he delivered the Hunterian oration before the Royal College of Surgeons.

SOCIETY MEETINGS.

THE Medical Society of the State of New York will hold its ninety-sixth annual meeting at Albany, Tuesday, Wednesday and Thursday, January 28, 29 and 30, 1902, under the presidency of Dr. Henry L. Elsner, of Syracuse. The scientific part of the program is being prepared by the business committee, which consists of Drs. Nathan Jacobson, chairman, 430 S. Salina Street, Syracuse; George R. Fowler, Brooklyn, and William C. Krauss, Buffalo. Members and delegates desiring to read papers are requested to communicate with the chairman of this committee.

A rebate will be given by the railroads to members and delegates attending this meeting, but it is necessary in order to obtain this rebate, that a certificate be obtained from the ticket agent at the starting point, which will be given to the purchaser upon request.

THE Western Surgical and Gynecological Association held its eleventh annual meeting at Chicago, December 18 and 19, 1901. A large and interesting program had been prepared and the meeting was well attended and took rank as one of the best in its history. The officers were: President, A. F. Jonas, Omaha, Neb; first vice-president, A. W. Abbott, Minneapolis, Minn.; second vice-president, C. E. Ruth, Keokuk, Iowa; secretary-treasurer, George H. Simmons, Chicago, Ill. Executive council: O. Beverly Campbell, Chicago, Ill., Chairman; H. C. Crowell,

Kansas City, Mo., John P. Lord, Omaha, Neb., Jas. E. Moore, Minneapolis, Minn., M. L. Harris, Chicago, Ill. Committee of Arrangements, John B. Murphy, Chairman; A. H. Ferguson, J. Clarence Webster.

THE Buffalo Academy of Medicine held meetings during the month of December, 1901, as follows:

Section on Surgery.—Tuesday evening, December 3. Program: The division of the sensory root of the trigeminus for the relief of tic douloureux; an experimental, pathological and clinical study, with a preliminary report of one surgically successful case, Charles H. Frazier, Philadelphia, Pa.

Section on Medicine.—Tuesday, December 10. Program: Some new ideas in management of typhoid fever, D. W. Harrington; Little's disease, Irving M. Snow; Friedreich's ataxia, Dewitt H. Sherman; A case of microcephalus, L. Schroeter; Is it syphilis of the nervous system? Sidney A. Dunham. A case of congenital idiocy, Julius Ullman.

Section on Pathology.—The meeting of this section announced for the evening of December 17, was postponed until further notice.

Section on Obstetrics.—Tuesday evening, December 24. Program: Peritoneal tuberculosis, William H. Mansperger; Concerning the management of labor cases, Stephen Y. Howell.

THE Esculapian Club, of Buffalo, will hold meetings for 1902, as follows: January, host, H. S. Townsend, essayist, A. J. Colton; February, host, F. W. McGuire, essayist, C. J. Reynolds; March, host, F. J. Carr, essayist, C. A. Clements; April, host, C. J. Reynolds, essayist, C. E. Congdon. The officers are: President, A. W. Bayliss; vice-president, W. B. Saltsman; secretary-treasurer, C. J. Reynolds. The meetings are held on the third Thursday of each month.

THE Medical Society of the County of Chautauqua held its semi-annual meeting at Jamestown, Tuesday, December 17, 1901, under the presidency of Dr. N. E. Beardsley, of Jamestown. The program prepared by the secretary, Dr. C. A. Ellis, of Sherman, was as follows: Appendicitis, A. Wilson Dods, Fredonia; (a) Serious heart lesions without continuous physical signs; (b) Arteriosclerosis in early and middle-life, Henry L. Elsner, Syracuse, President Medical Society of the State of New York; Some complications of heart disease, A. D. Lake, Gowanda; renal

and vesical tuberculosis, J. Henry Dowd, Buffalo; Value of ophthalmic examinations in general diagnosis, Geo. E. Blackham, Dunkirk.

COLLEGE AND HOSPITAL NOTES.

MCGILL UNIVERSITY is to have a foundation on political economy, to be known as the William McKinley fellowship, for which the American residents of Montreal have subscribed a fund of \$9,000. This is the most befitting kind of a monument to build to the memory of the martyr President. Dr. Thomas G. Roddick, has been appointed dean of the medical faculty of McGill, replacing Dr. Craik, resigned, on account of age.

THE Buffalo Hospital of the Sisters of Charity has received from Dr. Edward J. Meyer, of Buffalo, a present of an operating table and instrument cabinet. The table was manufactured by the Kny-Scherer Company, of New York, and was on exhibition in the Manufacturers' Building at the Pan-American Exposition. It is made of glass and steel and is valued at \$250. The instrument cabinet is also made of glass and steel and is the one that was used at the Emergency Hospital on the Exposition grounds.

The Sisters of Charity have purchased the three sterilising machines that were in the exhibit at the Pan-American. They are made of nickel and copper and are as perfect as can be made.

THE University of the State of New York in its authorised announcements for December, 1901, gives some interesting data, from which we extract the following:

College Department.—Report of the college department for the year ending July 31, 1901, will show that during the nine years in which the medical licensing examinations have been held 6,349 physicians have been examined, of which number 78 per cent. were licensed. At the dental licensing examinations, which have been given for 6 years, 1,264 dentists have been examined, of which number 79 per cent. were licensed. At the veterinary licensing examinations, which have also been held for 6 years, 93 veterinarians have been examined, of which number 56 were licensed. During the 5 years in which examinations for

expert public accountants have been held, 79 have been examined, of which number 58 received certificates. In these statistics each candidate who fails is counted as often as examined.

During the last year, in medicine, 671 old school candidates, 58 homeopaths and 20 eclectics have been examined. There were no failures in the case of graduates of 6 of the New York medical schools, and in only 2 of the New York schools did the percentage of accepted candidates fall below 90. In 1901, of the 194 examined in dentistry, 161 received licenses; of the 12 examined in veterinary medicine 7 received licenses; of the 17 examined in public accounting 13 received certificates as certified public accountants.

Award at Pan-American Exposition.—The university was awarded a gold medal for exhibit of educational methods and results. A diploma and a bronze form of the medal is to accompany award.

THE State Hospital for Consumptives has finally been located at Raybrook, between Saranac and Lake Placid. Thus a long controversy comes to an end, and if the site chosen has not the advantages of the one first selected by the commission, it is an eligible one and should prove satisfactory. Dr. John H. Pryor, the commissioner from Buffalo, who was the chief mover in the establishment of the hospital, has expressed himself as satisfied with Raybrook.

A MARINE hospital in Buffalo will be an accomplished fact in the near future. At least it will be if the supervising surgeon-general of the service and the Hon. D. S. Alexander, M. C. from Buffalo, can bring it about. The Secretary of the Treasury has approved the recommendations of the surgeon-general and Representative Alexander has introduced a bill in Congress appropriating \$125,000 for the hospital.

The subject has been agitated for some time. At present sailors are treated in one of the local hospitals, where there is a so-called marine ward. The importance of Buffalo as a lake port demands that a special government hospital be built here. These hospitals are largely supported by the sailors themselves, who contribute a certain percentage of their monthly pay for the purpose. In return they receive free treatment.

BOOK REVIEWS.

THE DIAGNOSTICS OF INTERNAL MEDICINE. A Clinical Treatise upon the Recognised Principles of Medical Diagnosis. Prepared for the Use of Students and Practitioners of Medicine. By GLENTWORTH REEVE BUTLER, A. M., M. D., chief of the second medical division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital, etc. Octavo, pp. 1077. With 5 colored plates and 246 illustrations and charts in the text. New York: D. Appleton & Co. 1901.

This book is a treatise upon a subject that concerns every physician who would keep himself well informed in the science and art of diagnosis. A useful preliminary is a well-arranged schedule of examinations with which the book begins, and then follow a few pages of preliminary considerations which include instructions on recording cases. Then the treatise proper commences and it is divided into two parts.

In the first part the evidences of disease are discussed at length and in elaborate detail, 44 sections, comprising nearly 650 pages, being assigned to their consideration. Almost every condition or item that can throw any light upon, or lead to the discovery of any existing disease in the human economy, is herein set forth. History, posture, gait, general appearance, temperament, dress, temperature, condition of skin, digestion, special senses, blood, the cavities, viscera, genito-urinary system, sputum, excretions—these and all other organs, tissues or states of the system are made to yield any evidence they possess, under the searching eye and hand of this author.

The second part is given over to the consideration of direct and differential diagnosis. In this Butler presents 11 sections, covering about 375 pages, in which he discusses the infectious diseases, diseases of the digestive system, of the respiratory system, of the circulatory system, of the blood and ductless glands, of the kidney, of the nervous system, of the muscles, constitutional diseases, the intoxications, sunstroke, and the diseases due to animal parasites. He gives succinct descriptions of these several diseases, together with their usual symptoms, and then applies the principles of diagnosis, direct and differential, in each disease.

These two parts complement each other and unite to make a symmetrical whole in the most satisfactory manner. The book contains everything of practical value relating to diagnosis and represents a vast amount of original work, put together in a most artistic and scientific manner. It contains much material nowhere else to be found and, besides, in it is sorted and grouped everything of value to be found elsewhere that could possibly aid in making a correct diagnosis.

The illustrations deserve special mention. The regions of the trunk have been clearly mapped upon nude figures, male and female, and the location of viscera are shown in diagram and drawing to a considerable extent. The ingenuity of the artist

has been cleverly blended with science, leaving nothing to be desired but much to commend in the pictorial part of the work.

There are some abominations in orthography that should be corrected in future editions. For example, "colour" and "labourer" belong to a past not consistent with the immediate present with which the work scientifically teems.

DISEASES OF THE INTESTINES. By DR. I. BOAS, Specialist for Gastro-intestinal Diseases in Berlin. Authorised translation from the first German edition, with special additions by Seymour Basch, M. D., New York City. Octavo, pp. 574, with 47 illustrations. New York: D. Appleton & Co. 1901. [Price, cloth, \$5.00; sheep, \$6.00.]

Knowledge of diseases of the chylipoietic system has increased very much of late, a fact due very largely to the effective and ingenious work of the author of this book. His treatise became popular in Germany, and its translation into English is in direct response to a demand for an exhaustive work on this branch of medicine in that tongue.

As might be anticipated the author pays great attention to the pathological aspect of his subject and also to the physiologico-chemical view. He gives minute directions as to the examination of the patient, and presents an exhaustive chapter on the examination of the feces. This method of diagnosis is too often neglected or indifferently applied. It is, according to this author, an integral factor in the diagnosis of intestinal diseases. It is to be hoped that what Boas has written will stimulate the more effective application of this important method. Short chapters set forth, also, the diagnostic value of examinations of the stomach contents and urine.

In the chapter allotted to the consideration of the therapeutics of intestinal diseases this author is clear and presents an amount of material that deserves careful study. In a special division the most important intestinal diseases are considered in a manner that will prove of great aid to the clinical management of these affections. Boas acknowledges a great indebtedness to surgery for the contribution it has made toward the solution of many problems relating to diseases of the intestinal tract, especially as regards appendicitis, intestinal obstruction, and tumors. An index giving a list of subjects and a list of authors closes this valuable treatise.

PROGRESSIVE MEDICINE. Volume III., September, 1901. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 428 pages, 16 illustrations. Philadelphia and New York: Lea Brothers & Co. [Per annum, in four cloth-bound volumes, \$10.00.]

The departments considered in this volume are: (1) Diseases of the thorax and its viscera, including the heart, lungs and bloodvessels, by William Ewart (of London); (2) dermatology and syphilis, by William S. Gottheil; (3) diseases of the nervous

system, by William G. Spiller; (4) obstetrics, by Richard C. Norris.

Recent studies have advanced our knowledge of diseases of the respiratory tract in a marked degree and Ewart has presented in his article the essentials of everything pertaining to his department. Gottheil, too, has grouped all the recent information relating to dermatology and syphilis, including phototherapy and the Fensen light treatment; also he discusses blastomycosis and inoculation tuberculosis.

In the section on nervous diseases Spiller presents the newest points relating to tumors and abscesses of the brain, besides much other valuable material. In obstetrics Norris sets forth the question of toxins in strong light in discussing eclampsia, and many other obstetrical questions of importance are considered. Viewed as a whole this is one of the most interesting books in this very interesting series.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A practical exposition of the methods, other than drug-giving, useful in the prevention of disease and in the treatment of the sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital, etc. In eleven 8vo volumes. Volumes III.-IV. Climatogy: Health Resorts, Mineral Springs. By F. Parkes Weber, M.A., M. D., F. R. C. P. (Lond.), Physician to the German Hospital, Dalston; Assistant Physician North London Hospital for Consumption, etc. With the collaboration for America of Guy Hinsdale, A. M., M. D., Secretary of the American Climatological Association, etc. In two books. Book I.—Principles of Climatotherapy, Ocean Voyages, Mediterranean, European and British Health Resorts. Book II.—Mineral Springs, Therapeutics, etc. Illustrated with maps, etc. Philadelphia: P. Blakiston's Son & Co. 1901. [Price for the complete set, \$22.00 net.]

In these two volumes will be found everything important to know concerning climate, health resorts, mineral springs, and sanatoriums for special diseases, as applied to the management of those maladies that are amenable to such environments. These are conditions too little understood, or indifferently applied in the treatment of diseases, or in its prevention.

In volume three the principles of climato-therapy are discussed, which includes the physics, physiology, and general therapeutics of climate, to the consideration of which the first part is allotted. The description of health resorts makes up the second part, which runs through the remainder of this volume, and also is continued in the fourth volume. Then climato-therapeutics are taken up, forming part three, and this subject continues to the end of the fourth volume. Each volume concludes with an elaborate index, more complete in its detailed information than anything of the kind we have yet seen. The chapter on ocean voyages is of special interest and contains information of greatest value not to be found elsewhere.

The treatment of all the subjects in these two volumes is strictly scientific in character and the information they contain will prove of great aid to every practising physician.

PRACTICAL SURGERY. A Work for the General Practitioner. By NICHOLAS SENN, M. D., Ph. D., LL. D., Professor of Surgery, Rush Medical College, Chicago. Octavo volume, 1133 pages, with 650 illustrations, many in colors. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$6 00 net.]

The author announces that this work is not intended to cover the whole surgical field, but only such parts as are of practical importance to the general practitioner of medicine. This is as it should be, for the domain is too great to be discussed in detail and in its entirety in one book by a single author without making an unwieldy volume. There are parts of it, too, which belong almost exclusively to the practitioner of surgery. He must do the surgery of deliberation, the surgery of chronic disease, while the general practitioner must be prepared for the surgery of emergency. This is what Senn's book proposes to do for him.

The author has given very complete directions regarding local and general anesthesia—matters of the utmost importance in such a work; for hemostasis; for the treatment of hemorrhage; for asepsis and antisepsis; for drainage and for suturing and other dressings. These all deserve careful study by those for whom the book is specifically intended. Fractures and dislocations occupy more than a quarter of the book. These are also important subjects to the general practitioner, for they constitute a large proportion of his surgical work; particularly so with regard to fractures. The Röntgen rays have contributed largely toward the illustrations in this portion of the work and some of the plates are very striking in delineating fractures of the long bones. Under the head of "special fractures" Senn describes fractures of the neck of the femur, Colles's fracture and fractures of the skull. This is a very interesting chapter.

A miscellaneous list of subjects is next considered, such as exploratory puncture, subcutaneous medication, paracentesis and drainage of suppurating joints. Then comes aseptic catheterisation, emergency operations upon the air passages and empyemas. After a lengthy chapter on peritonitis he comes to the consideration of appendicitis. Senn is most interesting in his discussion of this subject. It is essentially a surgical disease and he handles it in a surgical manner. In the chapters upon intestinal surgery a masterful hand is observed. He discusses tuberculosis with great scientific acumen, and teaches many valuable ideas.

Resection of joints is one of the most important features of modern surgery, an often-to-be-employed substitute for amputation, by which a useful member is often saved. Its establishment as an acknowledged procedure is one of the triumphs of latter-day surgery. Amputations and disarticulations is the closing chapter, and then follows a well prepared index. The illustrations are copious, sometimes excellent, and always helpful.

Senn is a hardworking student of his art and is a pathologist of no mean accomplishments. In some places this work shows evidence of hasty preparation, but as an intelligent exposition of the science of surgery as practised today it is deserving of com-

mendation, and it will be particularly welcomed by the general practitioner of medicine for whom it is specially prepared. The distinguished author has contributed many books of value to the literature of medicine, and this one is by no means the least important of them.

OPERATIVE SURGERY. By JOSEPH D. BRYANT, M.D., Professor of the Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College; Visiting Surgeon to Bellevue and St. Vincent's Hospital, etc. Vol. II. Operations on Mouth, Nose and Esophagus, the Viscera connected with the Peritoneum, the Thorax and Neck, Scrotum and Penis, and miscellaneous operations. Octavo, pp. 729. 857 illustrations, including 40 which are colored. New York: D. Appleton & Co. 1901.

One of the attractions of this work is its practical character. In it almost every injury and operation that the everyday practitioner is likely to meet is described and the majority of them are illustrated. This gives the treatise a strong hold upon the general physician who, in the country at least, must be a surgeon. The surgery of special regions, dealt with in this volume, has seldom been delineated with as much clearness either in text or picture. Take, for example, the operations on the liver, and we fail to see how even the novitiate could fail to comprehend the descriptions and illustrations presented by this author. Of course, the specialist will need something more and in greater detail, but here the junior practitioner will find all-sufficient for his earlier needs. And, besides, the information is based upon the soundest surgical principles.

One of the marvels of the work is the profuseness of illustration that everywhere meets the eye. The engraver's art has been employed with a lavishness that provokes wonder and admiration, and with a degree of accuracy that, for the most part, affords satisfaction. We commend the entire work to every man interested in surgery.

THE HYGIENE OF TRANSMISSIBLE DISEASES: Their Causation, Modes of Dissemination and Methods of Prevention. By A. C. ABBOTT, M. D., Professor of Hygiene and Bacteriology, University of Pennsylvania. Second edition, revised and enlarged. Octavo, 351 pages, with numerous illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$2.50 net.]

The first edition of this book appeared about two years ago and was accorded an appreciative welcome. Its field had never yet been attempted by any other writer and the edition promptly became exhausted. The preparation of this second edition has enabled the author to modify opinions or amplify them, as the case may be. Some new light lately has been thrown upon the role of mosquitos in spreading yellow fever which had been discussed in this book, but in view of the demonstrations of Gorgas, at Havana, it is probable that this insect hereafter will be accorded a much larger place as a disseminator of this disease.

The author has enlarged and carefully revised the sections on malaria, yellow fever, plague, filariasis, dysentery, and tubercu-

losis, bringing the views expressed forward to include recent observations and investigations, concerning these maladies. He also has given color to the part rats may play in carrying the contagion of bubonic plague—a view now held by many observers. It is a book that should be in the hands of every enlightened physician, and particularly health officers of large cities should give it careful study.

THE ILLINOIS STATE BOARD OF HEALTH. Report of the Sanitary Investigations of the Illinois river and its tributaries. With special reference to the effect of the sewage of Chicago on the Des Plaines and Illinois rivers prior to, and after, the opening of the Chicago drainage canal J. A. EGAN, M. D., Secretary.

This report possesses special interest at this time in view of the construction of the Chicago sewage canal, by which it is contemplated turning the entire sewage of that great city into the Des Plaines and Illinois rivers. It is highly important that the state shall exercise complete sanitary supervision of all public water supplies and sewerage systems, and a study of this report by sanitary engineers and public health officials will prove of great interest in relation to the aforementioned problem.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten. Edited by ALBERT H. BUCK, M. D., New York City. Volume III. CHL-EQU. Illustrated by chromo-lithographs and 676 half-tone and wood engravings. Nine volumes, imperial 8vo. New York: William Wood & Co. 1901. [Price, muslin, \$6.00 per volume; leather, \$7.00 per volume; half-morocco, \$8.00 per volume.]

The list of contributors to this volume of this great work is a long one and includes the names of some of the most eminent men in the profession. Drs. Julius Pohlman and Grover W. Wende are the contributors from Buffalo. Many of the articles are almost exhaustive in character. Those on the chorion and the circulation of the blood are nearly if not quite so.

The other articles worthy of mention are so numerous that it would require pages of the JOURNAL to print them, but attention may be called to one on dietetics of the sick as worthy of note, and Koller's article on cocaine possesses special interest in view of the author's discoveries and investigations relating to the physiological action of the drug, especially as applied to ophthalmology.

The illustrations are copious and excellent, some of them, indeed, are superb, plate xxiii. showing affections of the cornea, and xxv. showing the humor tympanic membrane in health and disease, being of the latter order. Such a work represents an enormous outlay of time and money and it is a distinct aid to the study of the subjects it presents.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. For Practitioners and Students. A Complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of Arteries, Muscles, Nerves, Veins, etc.; of Bacilli, Bacteria, Micrococci, Streptococci; Eponymic Tables of Diseases, Operations, Signs and Symptoms, Stains, Tests, Methods of Treatment, etc., etc. By W. A. NEWMAN DORLAND, A. M., M. D., editor of the "American Pocket Medical Dictionary." Second edition, revised. Octavo, 770 pages, flexible leather. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, \$4.50 net.]

Within the past few years a number of good dictionaries have been placed on the market, each having some special claims to excellence, and all being worthy of praise. This one is intended to occupy a medium position between the large unabridged dictionary and the condensed students' edition. Its orthography is modern, its definitions are clear even if concise, and its pronunciation is beyond criticism. Its letter-press is clear and handsome, its tables are well prepared, and its illustrations are excellent, its arrangement convenient and its binding in flexible red leather is attractive. Its corners being rounded serve to preserve them from wear and tear and its red edges add to its general beauty.

These are a few of its distinctive qualities that go to make up one of the most acceptable dictionaries of its class. The first edition, a large one, was exhausted within eight months and this new one will be welcomed by a large number of purchasers without doubt. We have seldom seen a lexicon that equalled it in its class, and we know of none superior. The author and publisher deserve unstinted praise for the parts each have played in making such a superb and beautiful book.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the use of Practitioners and Students. By WM. OSLER, M. D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in the Johns Hopkins University and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, etc. Octavo, pp. 1200. Fourth edition. New York: D. Appleton & Co. 1901. [Price, cloth, \$5.50; sheep, \$6.50; half-morocco, \$7.00.]

From the first this work took a high position and has become a favorite as a text-book on practice. In diagnosis and pathology it is especially strong. Osler's method in imparting information is forceful and attractive, and he may well be accorded a place in the front rank as a teacher. He writes simple, good, and straight-forward English, which makes his book entertaining as well as instructive reading.

In this edition many changes have been made in order that its teachings may conform to the present state of science. The typhoid fever section has been rewritten in its essentials, the chapter on malarial fever has been recast to include the observations of physicians in the tropics on the subject, and the newer methods of transmission have been set forth. We may mention other diseases by name only in relation to which there is much

new material—dysentery, yellow fever, pneumonia, bubonic plague, diphtheria, smallpox, rheumatic fever; these and many others contain the latest additions to our knowledge. Besides, many new articles are presented, so that every essential point in the practice of medicine may be found appropriately covered. It is a treatise that deserves the continued confidence of the undergraduate as well as the practitioner of medicine.

THE PATHOLOGY AND TREATMENT OF SEXUAL IMPOTENCE. By VICTOR G. VECKI, M. D. Third edition, revised and enlarged. Duodecimo, 329 pages. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$2.00 net.]

This monograph has taken its place as an accepted authority on the subject of impotence. It is not an easy task to treat it adequately and keep within the limits of scientific inquiry. This author has performed the duty with delicacy and thoroughness. This new edition contains such additions as experience has deemed essential to keep it well forward in its teachings, and it will serve to prevent sufferers with this most unfortunate condition from falling into the hands of advertising fakirs. It at least ought to stimulate scientific work in this disorder among physicians, who, perhaps, have been too indifferent on the subject, or possibly, have not regarded it with that seriousness which it deserved. In this edition the subject of treatment has received increased attention, and is as complete as possible.

UTERINE FIBROMYOMATA. Their Pathology, Diagnosis and Treatment. By E. STANMORE BISHOP, F. R. C. S., Eng., President Manchester Clinical Society; Fellow of the British Gynecological Society, etc. Octavo, pp. 323; 49 illustrations. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$3.50.]

This work, although by a writer comparatively unknown, is a monograph of great value and will prove of much service in the study of the uterine fibromata. It is written in a way that convinces one that the author is a man of experience in this field, that he has made a careful study of the subject, and that he does not propose to give advice based upon inadequate knowledge.

The literature of this subject has increased very much within the last few years, indeed it may be said that twelve or fifteen years ago there was nothing very satisfactory in print pertaining to it. Then began the publication in the journals of the cases, singly and in groups of individual operators, but these were so scattered that it was scarcely possible to search for them with satisfaction in the time usually at command for such purposes. Bishop has met this defect most admirably by grouping and crystallising the material of value, so as to make it readily available; foot-note references being used to point out the sources of information.

This author, as might be anticipated, places very little reliance on electricity in the treatment of these neoplasms, except in inoperable conditions, and then he appears to realise that it

is only of transitory benefit. The chapter on the technic of operative methods is one of absorbing interest. He divides this portion of his treatise into three main classes: (*a*) methods which decrease the nutrition of the tumor; (*b*) methods which remove the tumor alone; and (*c*) methods which remove the uterus and tumor. He then proceeds to describe each in the clearest possible manner.

We have alluded to Bishop's familiarity with the literature of fibromyomata and his elaborate foot-note references, but we miss allusion to Ill's recent admirable contribution to the subject (*American Medical Quarterly*, April, 1900,) which is one of the best papers lately published on this side of the water. Everywhere this book will be welcomed as a safe guide in the management of these growths.

MANUAL OF THE DISEASES OF THE EYE. For Students and General Practitioners. By CHARLES H. MAY, M. D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, New York. Second edition, revised. 12mo, pp. 421. 275 original illustrations, including 36 colored figures. New York: William Wood & Co. 1901.

This manual has proved its popularity so quickly that a new edition is called for within the first year of its publication. This comes from the practical methods of its author and the excellent descriptions he gives of all the details of ophthalmic work. He has made some changes in a few of the subjects, and added a number of illustrations in the text, together with seven plates. These enhance the value of the book to a considerable degree. Especial attention may be directed with propriety to the chapter on ocular therapeutics, and to the unusually complete index which is also useful as a dictionary of ophthalmologic terms.

A HANDBOOK OF PATHOLOGICAL ANATOMY AND HISTOLOGY. With an Introductory Section on Post Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York; and T. MITCHELL PRUDDEN, M. D., LL. D., Professor of Pathology, College of Physicians and Surgeons, New York. Sixth edition. With 13 full-page plates and 453 illustrations in the text in black and colors. Royal 8vo, pp. 839. New York: William Wood & Co. 1901. [Price, muslin, \$5.00 net; sheep, \$5.75 net.]

This standard work presents itself in its sixth edition for the approval of the medical profession as well as undergraduates. The first part, consisting of three chapters, is taken up with the consideration of post-mortem examinations. Every junior member of the profession should familiarise himself with this subject. He will find nowhere else more complete instruction relating to it.

In the second part are eleven chapters treating of general pathology, in which will be found descriptions of the lesions of acute infectious diseases and their microorganisms; degeneration and inflammation; the histology of tumors; and the lesions induced by poisoning and violent deaths. In the third part,

devoted to the subject of special pathology, are fourteen chapters descriptive of the lesions of the several tissues and organs of the body.

The general arrangement of the work is quite the same as heretofore, but much new material has been incorporated in the text, a good deal has been rewritten, many new illustrations have been added, and the whole treatise advanced to the forefront of latest pathological knowledge. The chapters on the blood are to be commended in particular, and the whole treatise is one of exceptional merit, deserving the high place it has won for itself in the esteem of students and practitioners of medicine in all parts of the world.

THE ESTIVO-AUTUMNAL (REMITTENT) MALARIAL FEVERS. By CHARLES F. CRAIG, M. D. (Yale), Acting Assistant Surgeon, U. S. Army; Pathologist and Bacteriologist to the U. S. General Hospital, Presidio of San Francisco, Cal.; late Director of the Bacteriological Laboratories of the Sternberg U. S. A. General Hospital, Chickamauga Park, Ga., etc. Octavo, pp. 231. Illustrated by 2 colored plates and 21 clinical charts. New York: William Wood & Co. 1901.

With the new possessions we have lately acquired come new responsibilities, not the least of which is the study of tropical diseases, with a view to their abatement by improved sanitation or their successful treatment, one or both, according to environment and other controlling conditions.

The malarial fevers, of the tropics, especially the estivo-autumnal or remittent type, are singularly fatal in their nature as this author points out, and most active measures are needed to arrest their progress. Not until recently have their parasites been described and their etiology thus established. Craig has made a careful study of the whole subject, and has placed much valuable information in the hands of the profession through the publication of this book.

Mistakes in diagnosis are of frequent occurrence and it is by no means an easy matter to differentially diagnosticate the estivo-autumnal fevers. It is only through the careful study of the various types by skilful observers like Craig, that a satisfactory basis of judgment can be obtained. Every student of the subject should carefully examine this work, which is by far the best exposition of these fevers that has yet been published.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JAMES M. ANDERS, M. D., Ph. D., LL. D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Fifth edition, thoroughly revised. One handsome 8vo volume of 1,297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$5.50 net.]

For the fifth time in four years we are called upon to notice Ander's practice. From this it can be seen that it is easily the most popular text-book on the practice of medicine that is at present before the American profession. We have given our views in detail of the scope and plan of the treatise in former

reviews and notices, and we feel justified in repeating and reaffirming our previously expressed good opinions.

There has been no change in the original purpose of the author, which was to make his book so practical that it could not fail to be of service to the everyday practitioner, and, withal, scientific enough to meet the demands of the clinical teacher. There is, therefore, less of theory, and more of practical utility in this work than in most text-books on practice.

In this new edition the author has recast much of his previous work on the infectious diseases and has rewritten in large part the sections relating to the transmission of malaria and yellow fever. The role of the mosquito in these diseases is alluded to and many other interesting points are developed. Some new subjects are added, notably those on fatty infiltration of the heart, streptococcus pneumonia, and acute diffuse interstitial nephritis. The entire book has been thoroughly overhauled and brought into perfect harmony with the present day conditions relating to the practice of medicine.

SAUNDERS'S QUESTION COMPENDS. Essentials of Refraction and Diseases of the Eye. By EDWARD JACKSON, A. M., M. D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic. Third edition, revised and enlarged. Duodecimo, 261 pages, 82 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

This author is an experienced teacher, hence knows what the student of refraction most needs. The term student is not intended here to mean undergraduate, but any person who attempts to acquire the scientific knowledge necessary to practise refraction. The book has been increased in size and scope in this edition and now embraces, *en résumé*, everything necessary in such a work. Since question compends appear to be a necessity, let us have good ones like this book.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JOHN V. SHOEMAKER, M. D., LL. D., Professor of Skin and Venereal Diseases in the Medico Chirurgical College and Hospital, Philadelphia; Physician to the Philadelphia Hospital for Diseases of the Skin, etc. Octavo, pp. 905. Fourth edition, revised and enlarged. New York: D. Appleton & Co. 1901. [Price, cloth, \$5.00; sheep, \$6.00.]

The last previous edition of this well established treatise appeared in 1897, and since that time many new facts have been established relating to certain diseases of the skin, hence a new edition becomes important in order that this experienced author may keep his book quite in touch with the period. Dermatology has progressed quite as much as any other department of medical science.

In the present edition the most recent discoveries or observations relating to the etiology, pathology, pathogenesis, diagnosis and treatment of cutaneous diseases are set forth with that excellence of detail which only the experienced teacher can unfold.

An interesting study is the influence of parasites in exciting certain maladies, and Shoemaker has made some original observations on many phases of this subject. He has also paid great attention to treatment, and a very complete formulary, at the end of the book, makes it of special value to the general physician. It is a standard treatise that will continue to maintain its claim to popular favor.

PATHOLOGICAL TECHNIQUE. A Practical Manual for Workers in Pathological Histology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By FRANK P. MALLORY, A. M., M. D., Associate Professor of Pathology, Harvard University Medical School; and JAMES H. WRIGHT, A. M., M. D., Instructor in Pathology, Harvard University Medical School. Second edition, revised and enlarged. Octavo, 432 pages, with 137 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, Cloth, \$3.00 net.]

Laboratory students and workers of every grade—undergraduates, practicing physicians or pathologists—will be gratified to see the second edition of this excellent manual.

"Among the many changes and additions to this edition may be mentioned the amplification of the description of the parasite of actinomycosis and the insertion of descriptions of the bacillus of bubonic plague, of the parasite of mycetoma, and Wright's methods for the cultivation of anaërobic bacteria. There have also been added new staining methods for elastic tissue by Weigert, for bone by Schmorl, and for connective tissue by Mallory."

Coroners, physicians and official post mortem examiners everywhere cannot be too careful in conducting autopsies. Crime often goes undetected because of the slipshod way in which the post mortem examiner conducts his work. His duty is imperative—namely, to exhaust every known method to ascertain the cause of death and to lay the best basis for further study by the bacteriologist and histologist in case investigations become necessary on these lines. This book will be vastly helpful to all such officials and should be very carefully studied by them.

The importance of applying laboratory methods to clinical diagnosis is increasing constantly and this work gives clear information on that branch of the subject. It is one of the most valuable books of its class and should be in possession of every laboratory worker.

SURGICAL APPLIED ANATOMY. By SIR FREDERICK TREVES, K. C. V. O., C. B., F. R. C. S., Sergeant-Surgeon to the King; Surgeon-in-Ordinary to the Prince of Wales; Consulting Surgeon to the London Hospital, etc. New edition. Revised by the author with the assistance of Arthur Keith, M. D., F. R. C. S., in one 12mo volume of 576 pages, with 80 engravings. Philadelphia and New York: Lea Brothers & Co., Publishers. 1901. [Price, cloth, \$2.00 net.]

The distinguished author of this valuable little work said in the preface to the first edition, that it should be one object of applied anatomy to invest the hard, unassimilable facts of human anatomy

with the interest derived from an association with the circumstances of daily life; in other words, said he, it should make the dry-bones live. Sir Frederick has so nearly accomplished the task he set for himself that very little need be added to make it complete. The work is a very great aid to the surgeon, though its original design was to assist students preparing for their final examinations.

Like most new editions this one has been carefully revised, some of it rewritten and considerable new material added. The book is all that could be desired in such a work.

MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. Specially adapted for students of medicine, pharmacy and dentistry. By W. SIMON, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition, thoroughly revised and much enlarged. Octavo, 613 pages, with 66 engravings, 1 colored spectra plate and 8 colored plates representing 64 of the most important chemical reactions. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$3.00 net.]

The subject of chemistry is, speaking generally, a dread to medical students, particularly so when they appear for degree or license examinations. Simon has done much to smooth the rugged pathway for all who feel that the study of this charming science is laborious. Especially does this remark apply to the sections on chemical physics and physiological chemistry. These parts have been very much enlarged, and are now attractive and complete.

The original division of the work into seven parts is adhered to, and these are: (1) chemical physics; (2) principles of chemistry; (3) non-metals and their combinations; (4) metals and their combinations; (5) analytical chemistry; (6) carbon compounds or organic chemistry; and (7) physiological chemistry. The illustrations and plates are of a character to lend aid to a better understanding of the text. The decimal system is observed throughout, and the whole work is such as to elicit our warm commendation.

PEDIATRICS. The Hygienic and Medical Treatment of Children. By THOMAS MORGAN ROTCH, M. D., Professor of the Diseases of Children, Harvard University. Third edition, rearranged and rewritten. Octavo, pp. 1042. Illustrated by numerous engravings in the text and by colored plates. Philadelphia and London: J. B. Lippincott Co. 1901.

The third edition of Rotch's pediatrics has been rearranged and rewritten, thus making it practically a new book. The changes that have been made add greatly to the value of the work. The opinion was forced on one in the older edition that the chapters on disease were an appendix to those on infant feeding; and while in this edition the author devotes much space to the subject, a great deal of useless matter has been cut out. The advances in diseases of the blood, in bacteriology and in infant

feeding are incorporated in the present volume, several new colored plates and radiographs are added, and these and other changes make the work an interesting and valuable contribution to the literature of pediatrics.

The price has been reduced from \$6.50 to \$6 for the cloth bound book. M. J. F.

THE MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY AND CONNECTICUT.
Published by the New York State Medical Association. Volume III. 1901.

This book contains, according to the statement of the publication committee, a total of 12,641 names of physicians, of which 10,112 are in the State of New York, 1,472 in New Jersey and 1,060 in Connecticut. It is a well-arranged book of reference and is a credit to those engaged in its preparation.

TRANSACTIONS of the Medical Society of the State of New York at its Ninety-fifth Annual Session, held at Albany, January 29, 30 and 31, 1901. Frederic C. Curtis, M. D., Secretary. Published by the Society. 1901.

This valuable book appears again in its usual form. It is pertinent to say a word as to the make-up of the volume. It is standard octavo in size, printed on fine white antique paper, with good plain letter-press, and is bound in green muslin boards with gilt top. It is a model of simplicity and neatness combined with durability.

Not the least important part of the book is the preliminary matter in which occur the president's inaugural address, the reports of the various committees,—publication, legislation, hygiene, prize essays, and the state board of medical examiners,—and various other items, statements, and specifications of interest. These are frequently overlooked by the reader, but they possess importance for the member who should be familiar with the work of the society.

The president chose for the subject of his anniversary address—The radical cure of inguinal hernia, which is an able paper and is copiously illustrated. The volume is full of interesting and instructive material which deserves careful reading by every one fortunate enough to possess the book.

TWENTY-SEVENTH ANNUAL REPORT of the State Board of Health of the State of Michigan for the Fiscal Year Ending June 30, 1899. HENRY B. BAKER, M. D., Secretary. 1901.

TWENTY-EIGHTH ANNUAL REPORT of the State Board of Health of the State of Michigan for the Fiscal Year Ending June 30, 1900. HENRY B. BAKER, M. D., Secretary. 1901.

These two reports cover the period between July 1, 1898, and, July 1, 1900, in the operations of one of our most efficient state boards of health. Dr. Baker has long been recognised as authority on public sanitation and hygiene and is one of the most famous executive officers of a health board in the country. His work is quoted in the magazines and in the more permanent

literature of state medicine. These two books bear evidence of continued efficiency and painstaking accuracy on the part of the distinguished secretary.

TRANSACTIONS of the Medical Association of Central New York, at its Thirty-third Annual Meeting, held at Rochester, October 16, 1900. Vol. VII. Publication Committee, CHARLES A. VAN DER BEEK, S. L. ELSNER, WILLIAM C. KRAUSS. Buffalo Medical Journal Print. 1901.

Again the transactions of this active association are replete with interesting and useful information. The work of a single day by any medical body seldom contains so much of real value. The association has strengthened itself since it commenced the publication of its transactions in book form and it should continue the practice.

TRANSACTIONS of the Twenty-second Annual Meeting of the American Laryngological Association, held in the City of Washington, D. C., May 1, 2 and 3, 1900. Dr. James E. Newcomb, Secretary. New York: Carey Printing Co. 1901.

This volume, as is usual with the transactions of this association, contains some of the best thought of the year on diseases and accidents of the upper air tract. The members are experienced specialists and their work is entitled to and does receive the attention of the entire medical profession.

BOOKS RECEIVED.

Transactions of the American Otological Society at its Thirty-fourth Annual Meeting, held at the Pequot House, New London, Conn., July 16, 1901. Vol. XII., Part IV. Edited by S. B. St. John, Secretary protem. Published by the Society. New Bedford, Mass.: Mercury Publishing Co., Printers. 1901.

The Four Epochs of Woman's Life. A Study in Hygiene. By Anna M. Galbraith, M. D., Author of "Hygiene and Physical Culture for Women;" Fellow of the New York Academy of Medicine, etc. With an Introductory Note by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylvania. Duodecimo volume of 200 pages. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.25 net.]

Saunders's Question Compend. Essentials of Physiology. Prepared especially for Students of Medicine, and arranged with questions following each chapter. By Sidney P. Budgett, M. D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo volume of 233 pages, finely illustrated with many full-page half-tones. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

The Practical Medical Series of Year Books. Ten volumes. Issued monthly, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. I. General Medicine. Edited by Frank Bellvgy, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago. With the collaboration of S. C. Slanlen, M. D. October, 1901. Pp. 275. Chicago: The Year Book Publishers, 40 Dearborn Street. [Cloth, \$1.50.]

Transactions of the American Laryngological Association at the Twenty-third Annual Meeting, held at New Haven, Conn., May 27, 28 and 29, 1901. Edited by the Secretary, James E. Newcomb, M. D. New York: The Rooney & Otten Printing Co. 1901.

Transactions of the Medical Society of the State of New Jersey for 1901. Edited by William J. Chandler, M. D., Secretary. Newark: L. Q. Hardham, Printer.

An Experimental Research into Certain Problems Relating to Surgical Operations. An essay awarded the Alvarenga Prize for 1901, by the College of Physicians of Philadelphia. By George W. Cole, A. M., M. D., Ph. D., Professor of Clinical Surgery, Medical Department Western Reserve University; Assistant Surgeon to Lakeside Hospital, Cleveland. Philadelphia: J. B. Lippincott Co. 1901.

A Manual of Clinical Laboratory Methods. By John Benjamin Nichols, M. D., in Charge of the Clinical Laboratory of Garfield Hospital; Hematologist to Columbian Hospital; Professor of Normal Histology in the Medical Department of Columbian University, Washington, D. C. Illustrated. New York: William Wood & Co. 1901.

Gynecological Pathology. A Manual of Microscopic Technique and Diagnosis in Gynecological Practice. For Students and Physicians. By Dr Carl Abel, Privat-Docent, Berlin. Translated and edited by Samuel Wyllis Baudler, M. D., Adjunct Gynecologist to the Beth Israel Hospital, New York. With a chapter on the embryology of the female genitalia and the pathological growths developing from embryonal structures. Illustrated by 100 engravings. New York: William Wood & Co. 1901.

Progressive Medicine. Vol. IV., December, 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in Jefferson Medical College of Philadelphia. Assisted by H. R. M. Landis, M. D., Assistant Physician to the Outpatient Medical Department of the Jefferson Medical College Hospital. Octavo, handsomely bound in cloth, 409 pages. Illustrated. Issued Quarterly. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, \$10 00 a year.]

Gaylord and Aschoff's Pathological Histology. The Principles of Pathological Histology. By Harvey R. Gaylord, M. D., Professor of Surgical Pathology in the University of Buffalo, N. Y.; and Ludwig Aschoff, M. D., Professor and First Assistant in the Pathological Institute of the University of Göttingen, Germany. With an introductory note by William H. Welch, M. D., Professor of Pathology in Johns Hopkins University, Baltimore. In one very handsome quarto volume of 354 pages, with 81 engravings in the text and 40 full-page plates. Philadelphia and New York: Lea Bros & Co., Publishers. [Price, cloth, \$7.50 net.]

Transactions of the American Surgical Association. Volume the Nineteenth. For the Year 1901. Edited by Richard H. Herte, M. D., Recorder of the Association. Pp. xxviii.—514. Philadelphia: William J. Dornan, Printer. 1901.

Transactions of the State Medical Society of Wisconsin. Fourth Year, 1901. Including Constitution and By-Laws. Edited by Charles S. Shelden, M. D., Secretary. Madison: State Journal Printing Co. 1901.

Lea's Series of Pocket Text-Books. Hayden on Venereal Diseases. A Pocket Text-Book of Venereal Diseases. For Students and Practitioners. By James R. Hayden, M. D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. New (3d) edition, thoroughly revised. In one handsome 12mo volume of 304 pages, with 66 engravings. Philadelphia and New York: Lea Brothers & Co., Publishers. [Cloth, \$1.75 net; flexible leather, \$2.25 net.]

Peru History of Coca. "The Divine Plant" of the Incas. With an introductory account of the Incas, and of the Andean Indians of today. By W. Golden Mortimer, M. D., Fellow of the New York Academy of Medicine; Member of the Medical Society of the County of New York; Member of the New York Academy of Sciences; Member of the American Museum of Natural History; formerly Assistant Surgeon to the New York Throat and Nose Hospital, etc. Octavo, pp. xxxii.—576. With 178 illustrations. New York: J. H. Vail & Co. 1901. [Price, \$5.00 net.]

First Aid to the Injured and Sick. By F. J. Warwick, B. A., M. B., Cantab., Associate of King's College, London; Surgeon-Captain, Volunteer Medical Staff Corps, London Companies, etc.; and A. C. Tunstall, M. D., F. R. C. S. Ed., Surgeon-Captain Commanding the East London Volunteer Brigade Bearer Company; Surgeon to the French Hospital and to the Children's Home Hospital, etc. 16mo volume of 232 pages and nearly 200 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

LITERARY NOTES.

The Homeopathic Journal of Pediatrics, is the title of a new medical journal to be published in Buffalo on or about January 1, 1902. This will be the only journal in this country, in the Homeopathic School, that is devoted entirely to diseases of children. The subscription price will be \$1.00 per annum, and the journal will appear each month. The editor is Dr. J. G. Chadwick, of 382 Franklin Street. We wish the new enterprise from its beginning an uninterrupted success.

THE *Journal of the Association of Military Surgeons* has made its appearance. It is to be published quarterly, and takes the place of the annual volume of Transactions. The two numbers already issued present a fine appearance. The journal is edited by the secretary of the Association, Captain James Evelyn Pilcher, M.D., passed assistant surgeon U. S. Army (retired) and is printed at Carlisle, Pa.

THE *Western Reserve University Bulletin* is issued quarterly. The fourth number of Volume VI., November, 1901, contains addresses delivered at the seventy-fifth anniversary commencement day, '01, by some prominent men, a dietary of studies, an account of commencement week, and notes by the editor. Price, 50 cents.

THE Thirtieth annual report of the Buffalo State Hospital has been received. It is for the year ending September 30, 1900, and the hospital then contained 1,880 patients. The crowded state of even the much enlarged hospital, has necessitated the recent transfer of a large number of patients to Willard State Hospital. The report indicates the continued prosperity of the hospital under the able superintendency of Dr. A. W. Hurd.

ITEMS.

FRANK A. RUF, ESQ., president and treasurer of the Antikamnia Chemical Company, has just purchased a lot 80x109 feet, on the northwest corner of 22d and Pine Streets, St. Louis, for \$20,000 cash, on which his Company will begin the erection, early in spring, of a new Antikamnia laboratory, five stories high, covering the entire lot. The improvements will cost about

\$45,000 irrespective of the laboratory apparatus and appliances which will be of most approved pattern, from Darmstadt, Germany. The offices and various departments will be fitted with all modern conveniences, making the whole plant one of the most complete specialty laboratories in the United States. The success of the Antikannia Company has been marvelous and the energy of its officers bespeaks a continuance of the enterprise on enlarged lines.

THE Rio Chemical Company, of New York (formerly of St. Louis) has published a handsome gallery of pictures of interest to physicians. They are reproductions in color of famous paintings—12 in number—and are entitled, "An Accident," "A Test," "Home Treatment," "A Ray of Hope," "A Hypnotic Experiment," "The Alchemist," "A Cure for Gout," "Lesson in Anatomy," "Dutch Doctor and Patient," "Convalescent," "An Old Doctor's Study," and "The Leech." They are artistic pictures and should be seen to be appreciated.

THE Arlington Chemical Company, of Yonkers, N.Y., has issued a portrait of William McKinley, late President of the United States, for gratuitous distribution. It is an enlarged reproduction in rich sepia tints, 17 x 13, of one of President McKinley's best photographs and is a remarkable faithful likeness, besides being a work of artistic merit. It is important to have it properly framed, and the publishers send a suggestion with each picture looking to that end. The picture will be sent on application to the above address.

THE M. J. Breitenbach Company, of New York, is furnishing to physicians the Year book for 1902, as in former years. It is one of the most useful desk memorandum books with which we are familiar. It is of convenient size, each page being devoted to a day, and upon each page is an appropriate reminder of some clinical use of pepto-mangan (Gude), which has taken a strong hold of the profession as a blood builder. The book will be sent on application to the publishers, 53 Warren Street, by any physician who has been overlooked in the distribution.

THE Mellier Drug Co., St. Louis, has issued a very artistic plaque on the reverse of which is given the story of tongaline, which is the popular name of a preparation composed of fluid extract of tonga, fluid extract of cinicifuga racemosa and the salicylates of sodium, pilocarpin, and colchicin. It is indicated in neuralgia, rheumatism, grip, nervous headache, gout, malaria, and many diseases of the liver and kidneys. It is sold in liquid and tablet forms, and the tablets are offered plain or in combination with lithia and quinine. To prevent substitution it is advised that original packages be prescribed or only responsible druggists be patronised.

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No. 7.

ORIGINAL COMMUNICATIONS.

Pelvic Lesions in Relation to Their Distinctive Effects upon Mental Disturbances.¹

By A. T. HOBBS, M. D., late of London, Ont.
Now Superintendent Homewood Retreat, Guelph, Ont.

THE gradual evolution of the treatment of the insane unfolds factors in etiology that hitherto were unsuspected or given but little credence to as possible disturbers, either directly or indirectly, of the mental equilibrium of the sane. The surgical treatment of organic disease in patients mentally deranged was followed by mental phenomena so marked that the inference was reached that there must exist a relationship between certain physical lesions and mental disease, as the removal of the former was succeeded by an improvement or subsidence of the latter. This occurred so frequently that it could not be dismissed as mere coincidence, but it positively determined that these bodily lesions were in themselves responsible for the initiation or maintenance of insanity per se.

Until within recent years female lunatics received precisely the same attention and treatment as that accorded to male lunatics. That insane females possessed either an ovary or an uterus was either overlooked or ignored, and the possibility of either of these sequestered organs being grossly diseased seems never to have been contemplated by those into whose charge was committed the care of the insane. In explanation it must be said that without close observation or systematic gynecological investigation it was practically impossible to definitely state that pelvic disease existed, much less could be diagnosticated in a female lunatic. For this reason and because of the woman's mental infirmity with its accompanying delusion, or mania, or stupor or

1. Read before the Buffalo Academy of Medicine, November 26, 1901.

dementia which rendered her unable to rationally complain of physical distress as would a sane woman, it was hard to convince the majority of alienists that 15, or 20, or 25 per cent. of all insane women were suffering from one or more pathological lesions of the organs of the reproductive system.

A consideration of the statistics of institutions devoted to the care of the insane will show, by comparison of sexes and of their civil state that among their lunatic populations there are more single than married men and more married than single women. Why is there this preponderance of the single in the one sex and of the married in the other? The solution of this, I believe, is that single men lead more irregular lives than married men and as a result are more liable to dissipations and exposures leading up to the disease with subsequent mental as well as physical collapse, also that married women preponderate over the single of their sex, owing to their liability to injury and disease entailed by maternity with its sequence of ill health and nerve depreciation ending up so frequently in mental degeneration. That this is true, as experience has shown, should it not emphasise the necessity of a systematic examination of at least of all married female insane when under treatment to determine the presence or absence of gynecic complication, whether the patients are resident or not of institutions or sanitariums?

The result of pelvic examination of a large proportion of the female population at the asylum for insane, London, Ont., disclosed at least the presence of organic disease or abnormalities in 25 per cent.

The gynecological examinations were uniformly conducted with the aid of an anesthetic. Experience has taught us that the most suitable and reliable anesthetic for the insane is ether, preceded by the inhalation of nitrous oxide gas. This is the only method of any value of arriving at a proper diagnosis of the existence and nature of disease of the pelvic organs among the female insane.

As a result of these investigations it was found that 253 out of 1,000 females, (who were residents of the institution during the past six years,) had some pelvic disease or abnormality that needed gynecological treatment. Medical and other treatment only temporised with these lesions and was found difficult to carry out and non-productive of result. The only success in combating these diseases was that obtained through surgical means.

The surgical methods employed were those that are in daily use by all reputable surgeons for treatment of similar lesions in the sane. Many a patient required two or more operations to complete the treatment in her case.

To ascertain the proper value of the results succeeding the removal of the different lesions the cases will be classified into groups, the principal gynecological lesion in each patient determining the position in the classification.

Ovarian Diseases.—The total number of cases who received treatment for disease of the ovaries and tubes was 41. The treatment in each necessarily varied according to the disease or the complication present. To accomplish this it was found necessary to perform in seven, hysterectomies,—four by the abdominal route and three per vaginam; in twenty-five cases, single or double oöphorectomy was done and in the remaining nine a part of one or both ovaries was preserved, after removal of the diseased portions. Following these operations for ovarian disease there occurred two deaths or 5 per cent., both dying of complicating pneumonia, one on the seventh and the other on the twelfth day after operation. Good physical recoveries resulted in the remaining 39, or 95 per cent.

The subsequent mental history in the 39 patients who survived the operation was very good. The time of mental recovery varied from three months to one year.

The mental classification is summarised as follows:

	Cases.	Recoveries.
Acute mania	11	7
Chronic mania	23	9
Epileptic mania	2	0
Folie circularie	2	1
Psychoçoma	1	1
Acute melancholia	3	2

This gives a total of 20 recoveries or 49 per cent., The duration of the insanity in those 20 averaged eighteen months. Over and above this there were 10 patients, or 25 per cent., who showed a distinct mental improvement, although the average length of insanity in these ten exceeded three years.

The history of these ovarian cases disclosed heredity in 16 or 39 per cent. From this it will be seen that the introduction of modern surgery immensely benefited 30 women, representing 73 per cent. of the ovarian cases, by the reduction of disease tissue or of the removal of the entire organ whenever found necessary.

Abnormally Displaced Uteri.—It was found on examination of 66 patients that the main lesion presented was a displaced uterus. The abnormal position of this organ varied from simple retroversion to complete procidentia. To correct the pathological positions of this organ it was found necessary to shorten the round ligaments in 54 patients, to suspend the uterus per ventrum in 7, as well as to perform total extirpation in 7 others where the procidentia was complete.

These patients did not all do well, as death succeeded operation in two; one dying from secondary hemorrhage induced by the patient pulling out the ligatures, and the other from bedsores two months after treatment. Both of these occurred after vaginal hysterectomy.

A synopsis of the mental condition and recovery-rate of these 66 patients is tabulated below.

	Cases.	Recoveries.
Acute mania	20	15
Chronic mania	22	3
Epileptic mania	1	0
Puerperal mania	7	4
Acute melancholia	9	5
Chronic melancholia	1	1

From this table it will be seen that the mental condition was restored in 28 or 42 per cent., with an average duration of insanity of 1 year and 10 months. Besides these recoveries in 15 others or 23 per cent., the mental condition was more or less improved after correcting the displaced organ. This makes a total of 43 patients or 65 per cent. whose condition, both physically and mentally, responded to proper treatment. Of these 66 cases who had a mal-position of the uterus, it was found that 32 or 48 per cent. were tainted by hereditary insanity.

Tumors—Malignant and Benign.—Gynecological examination of 16 insane women disclosed as a complication of their insanity an acquired growth. Of these 9 had fibroid tumors of the uterus, 2 showed cervical epitheliomas, 1 a sarcoma of the body of the uterus, 2 had tubercular disease of the pelvic organs, and 2 had inflammatory deposits in and around the uterus. For the treatment of these foreign bodies there were performed 8 abdominal hysterectomies, 4 vaginal hysterectomies, 1 myomectomy, and 3 celiotomies, with the use of saline lavage in the tubercular cases.

Following operation in these 16 patients there resulted 1

death from exhaustion on the third day. The other 15, however, made good physical recoveries.

As to the mental features and number of recoveries the accompanying table will show:

	Cases.	Recoveries.
Acute mania	1	1
Chronic mania	11	1
Epileptic mania	1	0
Chronic melancholia	3	0

It will be seen by this analysis that only 2, or 12 per cent., recovered their reason subsequent to the removal of these physical lesions. The average duration of insanity in these 2 recoveries prior to operation was three years. There were 6 others, representing 37 per cent., whose mental status was improved. These latter, however, showed an average duration of insanity of over five years. Only 3 out of the 16 or 19 per cent. disclosed any heredity.

Diseases or Injuries of Uterine Cervices.—In 60 patients the main lesion which demanded surgical relief was a diseased or injured cervix. Nearly all of these cases were complicated by either a sub-involuted uterus or an endometritis. In 19 of these 60 cases there was, in addition to the cervical lesion, a complete or incomplete tear of the perineum. For the necessary relief of the diseased cervices there was carried out 52 amputations, 5 trachelorrhaphies and 3 underwent treatment by the method described by Dudley for the relief of stenosis of the internal os. Restoration to bodily health occurred in all. The accompanying table shows the mental state and the recovery rate of these 60 patients:

	Cases.	Recoveries.
Acute mania	17	12
Chronic mania	30	5
Puerperal mania	3	0
Epileptic mania	1	0
Folie circulairie	2	0
Chronic melancholia	3	1
Acute melancholia	4	0

Following uterine and cervical treatment there was complete mental relief in 19 or 31 per cent. These showed an average insanity duration of 15 months. Besides these recoveries, 14 others or 23 per cent. improved mentally. A history of heredity in these cervical cases complicated 21 or 35 per cent. of the whole number.

Diseases of the Uterine Body or its Lining Membrane.—On examination of 52 patients it was deemed necessary to curette for the reduction of a sub-involuted uterus or the correction of an endometritis. Some of these when under previous observation were noted as being menorrhagic, or were suffering from dysmenorrhea. All these patients so treated improved in physical health. The mental results were as follows:

	Cases.	Recoveries.
Acute mania	23	14
Chronic mania	15	1
Puerperal mania	3	2
Acute melancholia	5	3
Chronic melancholia	4	3
Puerperal melancholia	2	2

From this table it will be seen that the mental recovery rate was 28 or 48 per cent. and their average length of insanity was 10 months. Besides this, 11 or 21 per cent. showed mental improvement, their insanity averaging three and a half years.

The question of hereditary showed itself in the histories of 15 or 29 per cent. of the 52 patients so treated.

Injuries to the Perineal Body.—Lacerations of the perineum of all degrees accompanied by varying prolapse of the vaginal walls was found to be the main lesion in 18 patients. Most of these cases had also to some extent subinvolution of the uterus, which was corrected at the same time as the repair of the trauma to the perineum. The surgical treatment benefited these patients materially, as was observed by the rapid improvement in general health and subsequent mental tone. The classification of the mental disease and subsequent history of these 18 cases was as follows:

	Cases.	Recoveries.
Acute mania	6	2
Chronic mania	4	0
Puerperal mania	2	1
Acute melancholia	4	3
Chronic melancholia	2	1

This summary shows that 7 or 39 per cent. recovered mentally succeeding the restoration of the injured perineum and the removal of its complications. The average duration of their insanity was only 9 months. Of the others 3 or 17 per cent. improved whose duration of mental enfeeblement exceeded 9 years. Heredity complicated only 4 or 22 per cent. of these 18 perineal cases.

It is necessary to state that the six divisions as given are somewhat imperfect, as often an ovarian case was complicated by a displaced uterus, or a displaced uterus had in addition a lacerated or diseased cervix, or a diseased cervix was often accompanied by a tear of the perineum. A more limited classification may be devised by taking the ovarian lesions as one, the uterine displacements and diseases of the body and cervix together as a second, the injuries of the perineum as a third, and the tumors as a fourth class. This arrangement will summarise as follows: Of ovarian disease there were 41 cases with 20 or 49 per cent. recoveries; of uterine lesions there were 178 cases with 72 or 40 per cent. of recoveries; of injuries to the vaginal outlet there were 18 cases, with 7 or 39 per cent. recoveries, and there were new growths in 16 cases with 2 or 12 per cent. recoveries. From this division it will be noted that the pelvic lesions having the greatest effect upon mental alienation were those in which there existed changes in the ovarian structure, causing an interference with the ovarian function. The next most potent pelvic factor was disease of uterus, and third most important were injuries to the *via vaginalis*, while fourth, and last, new growths did not seem to disturb mental stability, except in a small percentage of cases.

Two simple divisions may be made of the whole number by grouping together all ovarian and uterine lesions as inflammatory. This will show that out of 219 cases supposedly inflammatory that 92 or 42 per cent. returned to their normal mental state. Then group all the remainder, including new growths and injuries to the perineum as non-inflammatory and these will make a total of 34 cases, with a recovery rate of only 9 or 26 per cent.

An epitome of the various mental diseases, which were the main lesions in the 253 patients, illustrates briefly the phases of lunacy that were the most susceptible to alleviation on the removal of gynecic sources of irritation.

The acute insanities were naturally the most amenable mentally to favorable treatment of pelvic ailments, as the post-operative results already given have shown. In the acute mental affections the recoveries from mania took the lead with a percentage of 61, then followed melancholia with 58 per cent. of recoveries and puerperal insanity the last, with 53 per cent.

In the chronic cases melancholia yielded much better results to surgical treatment than mania, there being 46 per cent.

recoveries in the former to 25 per cent. recoveries of the latter. Of the 4 cases of folie circulaire or circular insanity only 1 or 25 per cent. was mentally restored. Finally, of the 5 patients treated by these surgical methods 91 were complicated by a hereditary tendency or a percentage of 36.

In the former presentations of this work before medical societies some doubt was expressed as to the correctness of previous similar statistics, and we were said to be ultra-enthusiasts in this gynecological work. It was claimed that "we looked for disease and found it." In addition to this, there were some who endeavored through their criticisms to imply that we were guilty of unnecessary surgical interference.

These criticisms go beyond the Rubicon of legitimate argument and tend to cast odium upon the work that was done.

Regarding the want of faith in our statistics, I desire to place on record the following facts, which will confirm in a great measure the figures and deductions already given in detail.

For the past thirty years annual reports were presented to the Provincial government of all official statistics in connection with the varying movements of the population of London asylums. These statistics are substantially correct and are subject to government periodical supervision. The official records show that for the biquintennial period previous to the introduction of systematic surgical treatment the average annual rate of discharges of patients recovered and improved, calculated upon the admissions, was for the male residents 35.23 per cent. and for the female, 37.5 per cent.

For the third quintennial period, during which gynecological surgery was in vogue in addition to the ordinary methods of treatment, it was found that the annual rate of discharges among the men differed very little from that of the previous two quintennial periods, being 35, or 92 per cent. It was discovered, however, that the women during the third quintennial period had advanced from 37.5 per cent., the average of the previous ten years to 52.7 per cent., or a gain in the discharge rate among the women of 35 per cent. This was certainly due to the surgical treatment of pelvic disease which existed so largely among the female population, as the other methods of combating disease were practically the same as in previous years. An official analysis was also made concerning the number of readmissions of those who had been discharged during this third quintennial period. It was found that although many more women had been

discharged than men the number of readmissions were the same for each sex, being 19 women and 19 men. This undoubtedly verifies the stability of the mental cases who recovered after the removal of complicating utero-ovarian disease and still further qualifies the assertion that these diseases play an important part in the etiology of insane women.

The charge that unnecessary surgical interference had been done in these cases is absurd as well as untrue, as prior to operation the patient's family physician was consulted and asked to be present at that operation. This invitation was often accepted and unqualified approval of the work done was uniformly expressed by these visiting physicians. In addition to this the written consent of the nearest relative was always obtained to even the most minor of operations. These were some of the safeguards which surrounded these patients from unnecessary surgical interference.

As to the charge that "we looked for disease and found it" is certainly a more favorable criticism than the ultra-conservative policy of some of the critics, and their adherence to antiquated methods of treatment still pursued by many of our alienists.

The value of gynecological as compared with general surgery is proved by the results obtained after operations for the radical cure of hernia. In 39 patients of both sexes who were afflicted with either a ventral, umbilical, inguinal, or femoral hernia, a radical cure was attempted, and I am pleased to say with almost uniform success as regards the obliteration of this physical lesion. The mental results succeeding the operation for hernias were almost *nil*, as no mental recovery occurred although decided improvement in the general tone of these patients was observed.

In conclusion, let me say that there should be no doubt in the minds of physicians—general and special—as to the benefits that would accrue from the introduction and proper observance of aseptic gynecological surgery in institutions devoted to the care of the insane. Also that the state should see that its wards are properly safeguarded against unnecessary operations, such as the removal of normal ovaries for their possible effect upon a disturbed mental condition. That this has been done occasionally by surgeons I have reason to know and the results have been decidedly harmful, not only to the patients but to the establishment of gynecology as one of the regular methods that should

be employed in institutions where so many women are incarcerated and who without the aid that gynecology can give, are doomed to suffer untold misery as long as their existence endures.

Renal and Bladder Tuberculosis.¹

By J. HENRY DOWD, M. D., Buffalo, N. Y.

THE subject of tuberculosis of the urinary organs has been studied so carefully during the past few years that it would seem that but little new could be added; nevertheless, considering that it is still in its infancy, the writer hopes to add a few points looking to the early recognition of the true condition and with the avoidance of irritation the patient's life may be prolonged and annoying symptoms greatly mitigated.

Involvement of the kidneys or bladder by a tubercular process occurs as follows: (1) Through the lymphatics; (2) through the blood channels; (3) by direct extension, continuity; (4) by direct infection; (5) congenitally.

In case of the kidneys it is fair to assume that infection occurs through any of the above avenues, not barring direct infection which may happen through catheterisation. On the other hand, with the bladder there is no doubt, in the great majority of cases, that involvement takes place by extension downward from the kidney; but it also may take place from direct infection and through the blood or lymphatics. Involvement of these organs assumes two phases,—the one rapidly progressive, the other very insidious, provided in the latter case that irritation or other experimental interference is avoided.

It is in this latter variety of cases that months or even years may pass before a positive diagnosis can be made. This assertion may be strengthened further by the fact that in a great majority of cases pulmonary complications are wanting; or, if the lungs are involved, it is of so mild a type that cough and other symptoms have been scarcely noticeable. In contradistinction to tuberculosis of other parts of the body but very little dependence can be placed in the appearance of the patients or their general condition, for it is here we find a well nourished individual with no apparent cachexia until late in the disease, by which time a general systemic infection is in progress. As regards the

1. Read at the semi-annual meeting of the Medical Society of the County of Chautauqua, at Jamestown, December 17, 1901.

organs under consideration it is safe to state that the kidneys are the starting point of the disease in the great majority of cases, and these are involved either primarily or secondarily from the lungs or other structures above.

On the other hand, although the foregoing is an indisputable fact, it is nevertheless equally a fact that in only the very smallest percentage of cases are appreciable symptoms present until the bladder is involved. Although in almost every case the bladder is involved when symptoms referable to it become evident, still occasionally it is found that although the first symptoms may refer to the viscus they are reflex and are only pointing out the trouble higher up. The age and a careful history is of the utmost consideration. In a very large percentage of cases the first symptoms make their appearance between 17 and 40. In a series of 28 cases reported as operated by Morris, 18 occurred between 20 and 30, and of the 3 cases operated between 30 and 35, the first symptoms appeared from 5 to 6 years previous, thus making 21 out of 28 occurring between 20 and 30.

Careful attention should be given the urine for, although repeated examinations may show no tubercle bacilli, pus, blood cells and albumin may be found where little or no trouble was expected.

Being aware of the close similarity of tuberculosis and other symptoms of simple inflammation of these organs, it will not be my purpose to repeat a group of well known symptoms, but to enumerate a few points that may be considered almost pathognomonic. These may be divided as follows: history, localised lumbar pain, bladder capacity, incompatibility between tuberculosis of the bladder and nitrate of silver, and the downward extension of the pathological process.

History.—Symptoms referable to the bladder and kidneys occurring between 15 and 35 years, especially in the male and eliminating venereal disease, stone or other instrumental interference, and the urine being passed in two glasses shows the same opacity in both, points to a tubercular involvement.

Pain.—Unilateral lumbar pains, more marked by deep pressure, accompanied frequently or occasionally by blood in the urine, in the absence of other well known causes thereof, is very suspicious of tuberculosis.

Bladder Capacity.—Diminished capacity, *i. e.*, below seven or eight ounces, with only appreciable fulness, is one of the most important symptoms of tubercular cystitis. It occurs early and

in practically every case in contradistinction to the fact, that in old prostatics, for instance, where the viscus has suffered for years capacity remains about normal. This is accounted for by the inflammatory process involving not only the entire thickness of the mucous membrane, but also the connective tissue lying between the membrane and the muscles. As the case progresses even the muscles become involved. Capacity will be found to vary according to the time the bladder has been involved, I having seen contraction so marked that but one ounce of pure water could be used without causing the most intense suffering. The best method for ascertaining capacity is by the use of the Ultzmann syringe (capacity, 6 oz.) with the writer's attachment. With this the exact amount of fluid is measurable, the propelling thumb telling when the bladder will stand no more dilatation.

Incompatibility between Silver Nitrate and Tubercular Inflammation of the Bladder.—Although this drug is the most important, and I might say the only one with curative properties in simple inflammations, in tubercular conditions of the bladder it is not only contraindicated, but serves as a valuable aid in the differential diagnosis. I will grant that a silver solution of 1-20,000 will cause some uneasiness in a very mild, simple cystitis, or posterior urethritis, but where in this condition there may be frequency with some tenesmus, lasting from thirty minutes to two hours, in case of tubercular involvement the frequency, pain and spasm is very pronounced, and will last from eighteen to twenty-four hours. Blood may follow each urination.

Downward Extension of the Pathological Process.—Practically without exception tubercular involvement of the kidneys extend downward by continuity; furthermore the process is rapid. In every case where the kidney has been involved primarily, I have been able (in the male) to diagnosticate involvement of the ureter, prostate, vesicles or epididymi. In the female, the same is true as far as the ureters and bladder is concerned.

Treatment.—But little hope can be entertained for a cure in these conditions, for the very good reason that we rarely see the patient until the bladder or other parts are involved, and then there is that indisputable fact that in a goodly number, possibly every case, both kidneys are suffering. Providing there is no evidence of a tubercular process in the lungs or other organs, and we are reasonably sure the condition is unilateral, not having involved the bladder or other viscera to any extent, we are justi-

fied in attacking the kidney, removing the organ at once, or what is still safer and gives better results, nephrotomy, and as soon as the other kidney undergoes compensatory change the diseased one should be removed.

But little or no benefit results from nephrotomy or nephrectomy after the bladder is involved to any extent, excepting in case of the ureter becoming occluded, producing pyonephrosis, when operative procedures are called for. Operations on the bladder have been so unsuccessful that nothing can be advised until possibly late in the disease, when relief from pain and frequency may be obtained from a suprapubic cystotomy. The main dependence must be placed on environment and internal medication, with the avoidance of all local interference, which is merely experimental.

Although the same improvement will not be manifest as in disease of the lungs, there is no doubt that a change of climate with out-door life will be beneficial. In these conditions there is always more or less interference with perfect assimilation, therefore foods rich in oxalate of lime or nitrogen should be prohibited to a certain degree, yet not to an extent that systemic tone may be interfered with. Tonics are very beneficial at times, but the main dependence must be placed upon creosote or guaiacol.

Creosote is said to be quite irritating to the kidneys, yet if the valerianate (3 to 10 drop doses) is used this is overcome and the patient gets the benefit of the valerian. Local measures, such as washing the bladder, are contraindicated except in case of a mild infection being present and due to the use of unclean catheters. This condition can be easily and quickly removed by the use of silver in about 1-15,000 solution.

378 FRANKLIN STREET.

PULMONARY EMBOLISM AFTER ANESTHETICS.—According to Stengel, (*American Journal of the Medical Sciences*, August, 1901,) pulmonary embolism following the use of ether or chloroform as anesthetics is generally the result of preëxisting disease of the myocardium. It occurs more frequently after operations for uterine myomata than under any other circumstances, the sequence of events being: thrombus of the pelvic vessels, pulmonary embolus, pneumonia, death. Sometimes these events follow one another with astonishing rapidity. The rôle played by the heart in this process is that of a predisposing cause.

Concerning the Welfare of the Medical Society of the County of Erie.¹

By WILLIAM C. PHELPS, M. D., Buffalo, N. Y.

IT IS usual for a retiring president to bring to the attention of the society anything which especially pertains to its welfare. I have concluded that a few words concerning the society itself will be of possible benefit to it.

The Medical Society of the County of Erie is the oldest medical organisation in this city or county. According to data furnished me by the secretary, this society has existed since 1821, which was the next year after Erie County was set off from the County of Niagara. The Society, however, really has existed since 1808 for during that year Dr. Chapin perfected the organisation of the Niagara County Medical Society and the Erie County Medical Society was really its successor. Dr. Cyrenius Chapin was the first president, and he together with twenty-three others were the charter members. Erie County has been represented in the State Medical Society since the year 1823, and it has had among its members those who have become famous in the state and nation and throughout the world. I will not weary you with reciting the names of these eminent men, for they will recur to you all.

This society has been, during all its existence, a sort of clearing-house, if one may use the expression, for medical matters concerning the profession in this city and county. It has had conferred upon it important powers. For many years, through its board of censors, it had the power to issue licenses to those found competent to practise medicine, and these licenses were recognised throughout the state and throughout the United States. The board also has the power to bring proceedings in the courts against quacks of all degrees, and this feature of the powers of this society has never been more prominent than during the last few years under the able chairmanship of our distinguished ex-president, Dr. Coakley. It may also regulate the fees which its members may demand for their services, and its action is binding upon its members. On one occasion these fees were fixed not only for private practice but also for attendance in public institutions, and it is a matter of history that in this respect it overstepped its legal powers, for the courts, review-

1. Presidential address delivered at the eighty-first annual meeting of the Medical Society of the County of Erie, held January 14, 1902.

ing the action taken by the society in suspending some of its members, declared that it had no authority to enforce such a resolution in the manner in which it did.

It meets but twice a year and by reason of its legal rights has to transact a great amount of business not strictly scientific. Members resident in the city, or rather village, in 1831 organised the Medical Society of the Village of Buffalo. After ten years of successful work it took the name of the Buffalo Medical Association, and continued until it became absorbed by the Academy of Medicine. The fact that it was found necessary at so early a date, to hold meetings for strictly scientific work, may give us a hint as to whether it is not wise for the Medical Society of the County of Erie to hold sessions during which no business shall be transacted. We have a very large membership in the towns who have very little opportunity of attending meetings where scientific subjects are presented and discussed. They do not belong to the Academy of Medicine, nor to the medical clubs of the city. The Medical Society of the State of New York has found it necessary or advisable to hold a session for purely scientific purposes, and I would suggest that this society consider the propriety of holding meetings quarterly instead of twice a year; business to be transacted at the first and third, and medical subjects only at the second and fourth meetings or sessions.

An objection may be urged here that medical societies are already more numerous in the city than is profitable for those who are connected with them, and this prompts me to say a few words concerning the cause of the formation of some of them as it concerns this society.

At a very early date in the history of the American Medical Association, a code of medical ethics was adopted and made binding upon all its members. This code was written, as I have been informed, by Isaac Hayes, who for many years was the editor of the *American Journal of the Medical Sciences*. His character was so high, his ability so great, and his sense of honor so well known that it was thought best to commission him to draw up a code rather than have it prepared by a committee of the society. He did his work so well that it was unanimously adopted and was for many years respected and obeyed without question.

I think there is no doubt that had conditions remained unchanged it would still have the same obedience and respect rendered it as at the time of its adoption. Among its provisions

was one that members in regular standing should not consult with practitioners of medicine who held to an exclusive theory of practice. That was meant to include, among others, homeopaths and eclectics. At that time these two classes of practitioners were not required to possess the knowledge of the science and art of medicine, which members of the regular profession considered absolutely necessary for one to possess in order to safely care for those needing the services of the physician and surgeon. In the case of the homeopathic persuasion little, if any, attention was paid to anything more than their *materia medica* and the same was true of the eclectic. Very little time and study were required to become worthy, in the estimation of these two classes of practitioners, to become their associates. They were densely and dangerously ignorant. As an illustration of this point I will relate a circumstance personal to myself.

In the town from which I came, as a medical student to Buffalo, lived an eclectic physician who acquired great wealth and reputation as a physician. His wife met me and I told her that I was going to Buffalo to study medicine. She asked me to what school I was going and how long would it take me. I told her that I was intending to attend the Buffalo Medical College and that it would be three years at least before I would receive my diploma. She told me that I was making a great mistake; that if I would come over to their house she would interest the doctor in my case, and that she knew he would allow me to use his books and study in the office, and that in six weeks I would be ready to begin the practice of medicine! She said that was all the time that the doctor had ever studied and that he had never required any of his students to spend any longer time.

In a few years a great change took place among these two classes of physicians as to the desirability and necessity of medical education. With commendable zeal they set themselves to work to remedy what they knew was a great evil among them. Schools were established, and preliminary education was required. Satisfactory examinations before the granting of diplomas were insisted upon, and as a result they soon had schools which taught all the branches of medicine probably as well as they were taught in the schools of the regular profession, excepting, of course, their specialties, *materia medica* and therapeutics. This improved condition of medical education on their part soon brought an educated class of students, fully equal to those attending the regular medical schools, and as they graduated and went out into

practice, they became recognised as educated professional gentlemen. They could not be called quacks any longer. Treating them as quacks did not injure them, but injured those rather of the regular profession who adopted that plan of treatment toward them. In common with all applicants for license to practise they now must pass a final examination before the state licensing board.

About twenty years ago the Medical Society of the State of New York, after a warm discussion, by a majority vote declared that it would no longer be bound by the code of ethics of the American Medical Association. As I understand the matter, the chief objection was to that provision which prohibited members of the regular profession from meeting in consultation with those who practised an exclusive theory of medicine, meaning homeopaths and eclectics. But the society became, as I think, too radical and instead of stopping at absolving themselves from their allegiance to this one provision of it, threw the whole code over. I think that a code of procedure, similar if not exactly the same as that which has been in force so many years is necessary, with the exception of the clause to which the State Medical Society objected.

It teaches physicians what their duties are to each other; to their patients and to the public; the duties of the public to the profession; the duties of the patient to the physician, and thus contains what the medical man needs for his every-day work.

Recently a young medical man came to my office for advice as to what was the proper course to pursue in a consultation matter with two other physicians. He said that he had never heard anything about how he should act under those circumstances, for the reason that he had never been in a physician's office as a student. He had been a student of the university. The matter of being a student nowadays amounts to almost nothing as far as being a pupil of the alleged preceptor is concerned. In early times students were closely associated with their preceptors and they spent all their time in the office, excepting when they were attending medical lectures. They thus learned the ethics of the profession. But at the present time the majority of students are in the same condition of ignorance as to medical ethics as was the young physician who called upon me. I told him it was a very simple proposition and informed him where he would learn all about it,—that he would find it in the code of ethics of the American Medical Association. He said that he had never heard

of it and he was glad to know that there were printed rules which would give him the information he desired. He said he had asked several young physicians of his acquaintance what to do and they were as ignorant as he. He could not understand why the medical schools which he had attended had not given some instructions on these points.

A code, then, I believe, is necessary and as I said before, I think it was a mistake that it was bodily rejected by the state medical society; but when it comes to the question of being prohibited from meeting a reputable, legally authorised medical man in the treatment of a case, I, for one, object and am of the opinion that the state medical society did right. I believe that the matter should be left entirely to the physician himself, as it is a matter that concerns him more than any one else. If he feels disposed or thinks it to be his duty to assist a reputable, legally authorised practitioner of medicine in any case, I believe that he has a right to do so, and, I do not believe that it is the concern of any other physician.

On this simple proposition the Medical Society of the State of New York was split in twain. The minority members formed a new organisation and called it the State Medical Association. From that association district branches have been formed, the fourth district of which includes the city of Buffalo and meets here. In addition, county medical associations have recently been formed, so that the Erie County Medical Society instead of being the sole representative of a state organisation finds itself with two rivals, the District Branch and the County Association affiliated with the State Medical Association. This condition of things can not but result in our injury. The secretary tells me that at present on our books we have enrolled 471 members. The members of the state medical association organisations in this vicinity either are or have been members of our society. Some have resigned, and if a spirit of intolerance, which has begun to show itself, should continue and become more radical all members of the state medical association, who are members of the Erie county medical society, will be obliged to resign.

I base this opinion on the fact that a member of our society, who was also a member of the state medical association and who is a member of the staff of the Erie county hospital wrote to Dr. Ferguson, of the state medical association, stating that on the staff of the county hospital were four homeopathic practitioners, that he was liable at any time to be called to see patients

under their care in consultation, and asking for instructions. The reply which he received was that he must resign from the county hospital on account of the homeopathic practitioners on the staff with him, or he must resign his membership in the State Medical Association. He resigned his membership. There are forty more of us connected with the Erie county hospital who are liable at any moment to receive the same summons and, carried to its logical conclusion, I cannot see how a member of the county society can be allowed to be a member of the county medical association. Should this be carried out on the lines I have indicated our society must, of course, lose a large number of members and it will be prevented from receiving as members, a large number who otherwise would join us, so that it will not be long before new practitioners in Buffalo will be solicited, as is done at a caucus, to join either the county society or the county association. The code or no code question will not influence them as they know little and care less about it.

The revenues of our society have fallen off considerably in the last four years. The secretary tells me that he and the treasurer have been formerly paid for their services, but on account of the embarrassed condition of the treasury they will be willing to continue their services without pay. We will be unable to continue the prosecution of the army of quacks which will surely come to Buffalo, when it is learned that there is little danger of being disturbed in their nefarious work. Growing out of this condition of things there will be opportunities for misunderstandings and outright quarrels. Cliques will be formed and a united profession which once clustered around the old Erie county medical society will be a thing of the past. Looking at it in a still larger light, if no settlement of the difficulties is reached, it is not at all improbable that a new National Society will be formed and then we will have the spectacle, not only of warring county and state medical organisations, but also of national associations.

I am told that the formation of a National Medical Society has been more than talked of. The medical profession of the United States has been urging upon the National Government the desirability, the propriety, and the necessity of a medical officer having a seat in the Cabinet. What a spectacle the profession would make of itself, were two National organisations to appear at the Capitol to urge such a measure! How ridiculous the whole thing is when we stop for a moment to think what the cause of it all is. Simply whether a medical man shall not

have the right to see a sick person, associated with a legally authorised physician if he and the physician and the patient and the patient's friends so desire? That is all there is of it and there is only one way in which the matter can ever be settled and that must be the way of a compromise.

Having observed the matter from the beginning, I am certain that the state medical society will never readopt that portion of the code to which it objected. I am also certain that the National Medical Association will never admit delegates from the state medical society while that society stands on record as having repudiated its whole code of medical ethics.

If the two warring factions were nations and had armies they would go out on the tented field and fight it out, and the one defeated would give up what they had contended for. That is not possible in this case. Wise men must get control of both organisations. At present, I am informed there is little hope that any compromise can be effected.

"Whom the gods would destroy they first make mad," and that is the condition in which these two factions are at present, but it does seem to me that in the near future a compromise may be arranged and that as a result of it, the profession in Buffalo will be saved from being split up into factions. The spectacle of two rival state organisations in existence will disappear and the Erie County Medical Society will once more resume its place as the central representative body of the profession of the County of Erie.

146 ALLEN STREET.

The Present Outbreak of Smallpox in Buffalo.¹

By WALTER DAVID GREENE, M. D.,
Commissioner of Health of the City of Buffalo.

THE first case of smallpox which was followed by the present outbreak of that disease, occurred on April 14, 1901, since which time Buffalo has not been entirely free from its presence. Before any individual case had entirely recovered another would occur, but not until November 20 did the disease become general and so far, with the exception of about 9 cases, has been confined to a district of our city, bounded by William, Jefferson and Sycamore Streets, and Walden and Bailey Avenues.

1. Read at the eighty-first annual meeting of the Medical Society of the County of Erie, January 14, 1902.

The difficulties encountered in handling smallpox have been greatly enhanced by the opposition of the inhabitants of the district who hamper the work of the health authorities in every possible way. Many of them strenuously object to having their children vaccinated and especial objection is made to vaccinating the heads of families, the reason given being that a sore arm precludes work.

In several instances living rooms have been found locked, and doors and windows guarded by a man with a club or axe in his hand, who threatened violence to the physician who sought entrance for the purpose of investigation and vaccination of the inmates. This self-appointed guardian has, in some instances, been assisted by his wife. Police aid is constantly required and the thanks of the health department is due and is hereby tendered the police authorities for their active coöperation.

Several factors combine to counteract the efforts put forth to stamp out the disease. One, more prominent than any other, is the disposition on the part of the inhabitants to conceal the fact when cases occur in any given family. The reason given is that the father, who is the breadwinner, must be quarantined should the case be discovered, or must remain away from his family from four to six weeks. Another, is the exceedingly mild form of the disease as it now exists. The great majority of cases require no treatment whatever. If it were of a more severe type a physician would be called to treat it, and discovery and quarantine would follow.

Several children have called at the vaccination station to be vaccinated who were recovering or had fully recovered from smallpox. Another prolific cause is the fact that we have no hospital worth the name for housing and quarantining those who suffer from this malady. In the so-called isolation hospital, there are two rooms in which the patients are cared for, something like the general ward in any of our city hospitals,—one for males and one for females. Women of all colors and nationalities are huddled together, their ages being from the old woman down to the nursing baby, the predominating number being children under fourteen years of age. This building is heated with stoves and lighted by kerosene oil lamps. The roof of one part of this building is in such a condition that wash-tubs have to be used to catch the water that pours through the openings during a rain-storm. Then, again, the fact is apparent that it is not large enough even if it was in proper sanitary condition.

Smallpox is not as contagious in its early as it is in its later stages, and if a patient is taken early to an isolation hospital, and the other members of the family given an antiseptic bath, vaccinated, their clothing and the house fumigated and disinfected with formaldehyde gas, the danger from spreading the disease is minimised to such an extent that no further steps are necessary. But, when the patient must remain at home, for want of a proper isolation hospital, the entire family must remain under quarantine for several weeks, and all must be fed at the city's expense.

In the section where it now exists, five families occupy the same house in many instances, the sum total inhabiting a single house being 25 to 30, and with only one closet. That condition means that, if a case of smallpox occurs in that house, the entire number must be quarantined and fed at the city's expense for from four to six weeks, or until desquamation has entirely ceased. In the meantime other cases are liable to occur in the same house, thus lengthening the time of quarantine and feeding to possibly three or four months. It also requires the services of three policemen for every twenty-four hours. I do not mean to convey the idea that this measure is adopted in every case, but when the hospital is filled, then the above condition, of necessity, must exist. The total number of cases discovered and reported from April 14, 1901, to January 14, 1902, has been 237; number treated at isolation hospital, 65; patients in hospital at present time, 30; other members of families in hospital, 8; houses under quarantine at present time, 34; families under quarantine at present time, 55; persons under quarantine at present time, 314; total number of persons under quarantine from October 12, 1901, to January 14, 1902, about 1,100; total deaths, 3.

The city was employing at one time about 160 policemen for quarantine duty, and feeding about 475 people outside of the hospital. What the cost will be will depend of course upon the length of time it will take to stamp out the disease. Six physicians are now regularly employed, making a house to house search for concealed cases and vaccinating the inmates. An accompanying policeman is necessary in every case. All the cases discovered for several days have been found by this exploring party, with the exception of those occurring in families where the disease already exists. The cost of the outbreak of smallpox in 1872 and 1873 was, in round numbers, \$46,000, of which \$24,000 was paid to physicians for their services in vaccinating. Fifty cases were reported in one day during that epidemic. The total

number reported in the outbreak in 1889 was 147, with a total cost of about \$22,000.

The mild character of smallpox attains all over the United States, which country never had so much smallpox in its history as at present.

From June 28, 1901, to December 6, 1901, smallpox was present in thirty-eight states and territories, Ohio leading with 3,466, then follows Minnesota with 2,245, Tennessee with 2,155, and Pennsylvania with 1,614, the grand total of cases occurring during that period in the United States being 15,549, with total deaths of 502, making a death-rate of about 3.22 per cent.

The reason of the mild character of smallpox throughout the country is not definitely known, but I suggest that it is largely due to the hereditary transmission of immunity. We all believe that the tendency to tuberculosis is transmitted from parent to child, and when we take into account the fact that the Anglo-Saxon race is a well vaccinated race, and has been for several generations, it seems rational to believe that the immunity may be hereditary.

315 JERSEY STREET.

A Century of Medical History in the County of Erie.— 1800-1900.¹

By WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

Pioneer Physicians—Medical Societies—Medical Colleges—Hospitals—Medical Journals—Women Physicians—History of Homeopathy—Medical Officers of the Civil War—Individual Members of the Profession.

SUPPLEMENT.

VIII.—ALUMNI ASSOCIATION MEETINGS.

SOMETIME during the winter of 1899 the officers in charge of the Alumni Association of the Medical Department of the University of Buffalo conceived the idea of holding a mid-winter reunion. This conception was carried to a most successful conclusion on Wednesday evening, February 22, 1899.

The selection of this patriotic day for the gathering of the sons and daughters of the college proved most appropriate, and a

1. NOTE.—The last chapter of this history was published in the BUFFALO MEDICAL JOURNAL, April, 1899, which brought the record down to that time. These supplementary chapters are now presented, that the history may be carried from that date forward to the end of the XIXth Century, thus completing it.—W. W. P.

large gathering of physicians and friends of the college met and were agreeably entertained on the occasion referred to.

The executive committee, Dr A. T. Lytle, chairman, and Drs. G. W. Wende, H. U. Williams, Charles Cary, Eli H. Long and A. T. Kerr, associates, conducted an admirable program. The music was good, the supper served in the library was excellent, and the literary part of the entertainment proved most satisfactory.

The hour appointed was 8.30 p.m., and soon afterward the corridors and rooms were well filled with an enthusiastic throng of men and women.

After an exchange of greetings, the guests were conducted through the various laboratories where interesting details were observed, each teacher in charge being at his post to point out or explain some of the newer methods of instruction in vogue. The State Laboratory, with Dr. H. R. Gaylord in immediate charge, where investigations relating to the origin and propagation of cancer were going on, proved of special interest to many. This had been established the previous year under the supervision of Dr. Roswell Park, an appropriation by the legislature having been made for the purpose.

The chemic, microscopic, anatomic, physiologic and pathologic laboratories were thrown open, and it was the opinion of the visitors that nothing more complete than these could be found in any medical institution in this country.

In Alumni Hall, Prof. H. M. Hill exhibited stereopticon views of some of the work that was under study and investigation in these laboratories. These ceremonies occupied attention up to the hour of 9.30 o'clock, which had been appointed for the beginning of the literary exercises.

Dr. M. D. Mann, dean of the medical faculty, was presented and delivered an address in which he set forth the aims and hopes of the faculty, in the course of which he made a strong plea for the endowment of the chairs of anatomy, physiology, chemistry, pathology and bacteriology. He also extended a cordial welcome to the medical alumni of Niagara University to the benefits and pleasures to membership in the association.

Dr. Z. J. Lusk, '75, of Warsaw, N.Y., president of the alumni association, was introduced by the chairman and responded in a short and fitting address. Dr. Mann then introduced Dr. W. G. Taylor, of Buffalo, the last president of the alumni association of Niagara University, who made an appropriate speech.

The address of the evening was to have been delivered by Dr. Frederick Peterson, of New York, but owing to illness he was obliged to recall his promise, which he did in a most appropriate and witty letter of regret, that Dr. Lytle read in full. In Dr. Peterson's stead Dr. William Warren Potter, of Buffalo, addressed the assembled audience for about twenty minutes, after which adjournment was had to the library, where an hour was spent at supper, during which the orchestra played many strains of excellent music. This successful reception was commented upon by all present and a desire expressed for the permanent establishment of the mid-winter reunion.

The second annual reception was held at Alumni Hall, Thursday evening, February 22, 1900. A large audience, generously besprinkled with ladies, graced the occasion and the hall was appropriately decorated with patriotic emblems, reminding all that Washington's birthday had been appropriated by the faculty as permanent University day.

The dean of the faculty, Dr. M. D. Mann, was greeted with a round of applause when he took the chair and introduced the speaker of the evening, Dr. Frederick Peterson, '79, of New York, whose subject was Practical Psychology. To say that it was interestingly, instructively, even ably dealt with only echoes the universal opinion of every one who heard the distinguished visitor.

The next feature of the evening was an attempt by Madame Bergman, of Buffalo, to demonstrate what is termed psychometry—whatever that may mean. At all events the famous "mind-reader" made sorry work of her attempt to measure the mentalities of several of her prominent auditors. It was easy to see how, by her jugglery with words and by making a few common-place guesses, more or less accurate, the superficially trained—even the superrefined—might be impressed with the wonderful "gifts" of such a person.

Dr. Jason Parker, of Jamestown, who was billed to give a practical demonstration of hypnotism, was more successful. From a group of messenger boys hastily collected, he succeeded in apparently hypnotising a number of them. As an exhibition it was entertaining and succeeded in stimulating speculative thoughts in the minds of many present as to its applicability or utility. Dr. Parker received the applause of his audience many times during his entertaining demonstration.

Then came Prof. Gee Hart, of Buffalo, who delighted everybody by a sleight-of-hand performance, during which he filled

the air with half dollars, all of which rained into his own coffers. Frequent applause testified to the interest in this part of the entertainment, which closed the exercises of the evening in Alumni Hall, and then luncheon was served in the library where a pleasant hour was passed.

The regular annual meeting—the 24th—of the Alumni Association held April 25, 1899, was presided over by Dr. Z. J. Lusk, '75, of Warsaw, N.Y.

A paper was read by Dr. William G. Bergtold, of Denver, Col., entitled Human hemoglobin in high altitudes, which was discussed by Drs. Charles G. Stockton, Albert E. Woehnert and A. L. Benedict.

Dr. John H. Pryor read a paper entitled, The relative death-rates of cancer and of consumption, which was discussed by Drs. H. R. Hopkins, DeLancey Rochester, H. R. Gaylord and George E. Blackham.

Dr. George Henry Fox, of the College of Physicians and Surgeons, New York, then presented about 100 stereopticon slides, from his original collection, showing the many phases of cutaneous syphilis. At the same time Dr. Fox indicated in a concise manner their diagnostic features, and to those listening and looking it was equal if not superior to a clinic. The reception of this lecture was enthusiastic and it was discussed by Drs. Charles Cary and Ernest Wende.

At the meeting the classes which had reunions were those of '47, '48, '49, '59, '69, '74, '79, '89, and each class took luncheon by itself at the several Buffalo hotels.

A marked feature of the morning session was an informal reception given by a committee of women physicians to women graduates and the wives of visiting alumni, which was held in the library of the University from 10 until 12.30 o'clock. Afterward luncheon was served and at which several felicitous little speeches were made. The library was appropriately decorated with rugs, palms, flowering plants, flags and the college colors. The reception committee consisted of Ida C. Bender, chairman; Maud J. Frye, Mary I. Denton, Edith M. Stewart, Margaret S. Halleck, Lillian C. Randall, Jeannette P. Himmelsbach, Amelia E. Trant, Marie S. Ross, Alice Ross Bennett, Bina P. Vandenberg, Mary M. Huntley, Cora B. Lattin, Jane W. Carroll, Carro J. Cummings, Alice L. Mitchell and Jane N. Frear.

The annual dinner was served in the banquet room of Music

Hall, which was elaborately decorated with national colors. Alumni from 1847 to 1899 inclusive sat down to a delightful spread; music and college songs filled in the time until the toasts were announced by Edward N. Brush, as toastmaster, in his usual entertaining manner. The list was as follows: Forty-niners, '47-8-9, Walter D. O. K. Strong; Twice Two Score, '59, William Warren Potter; Endowment, Eugene A. Smith; Three Decades, '69, Frank A. Jones; A Quarter Century, '74, Robert P. Bush; A Score, '79, William L. Dickinson; Specialism, George H. Fox; A Decade, '89, Robert S. Carr; Today, '99, Frank P. Bingham; Tomorrow, Mary Innes Denton; Farewell, A Poem, Thomas M. Heard.

The twenty-fifth regular session of the Alumni Association was called to order by the President, Dr. William Warren Potter, '59, in Alumni Hall, at 2.30 o'clock p.m., April 27, 1900.

The president delivered his annual address, the subject being Metrorrhagia and the Menopause.

It was discussed by Drs. H. E. Hayd, M. D. Mann and C. C. Frederick.

Dr. Maud J. Frye next read a paper on The symptomatology of early ectopic gestation. It was discussed by Drs. Frederick, Mann, Charles A. L. Reed, of Cincinnati, and Hayd.

Dr. Grover W. Wende followed with an interesting talk on certain skin diseases, illustrated by a large number of most excellent stereopticon views.

Dr. L. A. Weigel, of Rochester, closed the proceedings with an informal talk in the Diagnostic value of the *x*-ray, illustrated by the stereopticon.

In the morning the arriving alumni were greeted by the several committees. After registration and payment of dues came reunions of classes, and informal visiting. They then were taken in charge by the reception committee, Dr. Nelson W. Wilson, chairman of the general committee, and Dr. Margaret S. Halleck, chairman of the women's committee, and escorted to the several rooms set apart for these meetings.

The classes of 1850, 1860, 1870, 1880 and 1890 had appointed meetings for this year. They talked over the past and then each class took luncheon together.

Officers of the class of 1870 were elected as follows: president, Dr. C. B. Kibler, Corry, Pa.; secretary and treasurer, Dr. L. W. Byam, Mumford, N.Y.

Officers of the class of 1880 were elected as follows: president, Dr. Ten Eyck O. Burleson, Bath, N. Y.; secretary,

Dr. C. H. Woodard, Buffalo; treasurer, Dr. C. M. Daniels, Buffalo.

Officers of the class of 1890 were elected as follows: president, Dr. D. J. Tillotson, Rochester; vice-president, Dr. L. J. McAdam, Buffalo; secretary and treasurer, Dr. B. C. Johnson, Buffalo.

The classes of 1850 and 1860 elected no officers.

In the evening the annual dinner was served at the Iroquois. The president, Dr. William Warren Potter, who had held the same office in 1877, presided at the banquet and acted as toastmaster. He inaugurated the speech-making, with a few remarks, closing with a toast to the health of Dr. Roswell Park, who was just then recovering from a grievous illness.

The response was prompt, the audience rose en masse and amidst rousing cheers, flying napkins, and rattling glasses, the health of Dr. Park was eagerly drunk.

The toastmaster, paying little heed to the printed rotation, then announced the sentiments and called upon the speakers in the following order of sequence:

Alma Mater Dr. Charles G. Stockton.
"He thought as a sage, though he felt as a man."

The Class of '00 Dr. William Fred. Powers.
"Think naught a trifle, though it small appear."

The Physician Idealised Dr. Cora Billings Lattin.
"It were a journey like the path of heaven,
To help you find them."

Preaching and Practising Rev. George B. Richards.

The Pan-American Hon. William I. Buchanan, Director-General.
"Lest men suspect your tale untrue,
Keep probability in view."

The Ohio Idea Dr. Charles A. L. Reed, Cincinnati, Ohio.
"There is occasions and causes why and wherefore
in all things."

The election of officers for the ensuing year resulted as follows:

President, Dr. Devillo W. Harrington, Buffalo, class of 1871.

First vice-president, Dr. Frank H. Moyer, Moscow, class of 1872.

Second vice-president, Dr. A. W. Bayliss, Buffalo, class of 1889.

Third vice-president, Dr. C. S. Payne, Liberty, class of 1880.

Fourth vice-president, Dr. Mary J. Slaight, Rochester, class of 1880.

Fifth vice-president, Dr. Clarence King, Machias, class of 1885.

Secretary, Dr. T. H. McKee, Buffalo, class of 1898.

Treasurer, Dr. Herbert U. Williams, Buffalo, class of 1889.

Trustee for five years, Dr. William Warren Potter, Buffalo, class of 1859.

Executive committee, Dr. Albert T. Lytle, Buffalo, class of 1893, chairman; Dr. Grover W. Wende, Buffalo, class of 1889, and Dr. Abram T. Kerr, Buffalo, class of 1897.

IX.—THE HOSPITALS.

BUFFALO HOSPITAL OF THE SISTERS OF CHARITY.

Sister M. Florence, who for twenty-five years had charge of the Sisters' of Charity Hospital, at Buffalo, was transferred to the mother house at Emmittsburg, Md., about January 1, 1900. Sister Cynerine, also with the same hospital for seventeen years, was placed in charge of St. Mary's Hospital, at Detroit, Mich. Two Sisters from Emmittsburg took the places made vacant by the transfer of Sisters Florence and Cynerine.

During the Christmas holidays, 1899, the hospital received through the Hon. Wilson S. Bissell \$7,000 bequeathed to that institution by the late George Howard Lewis. This early settlement of this bequest was made at the request of Mrs. Lewis, in order that the hospital should receive the money during the holiday season, as it was Mr. Lewis's custom to remember it in the annual distribution of his Christmas charities.

In the beginning of the year 1900, the medical staff was reorganised. Dr. Stephen Y. Howell was chosen president; Dr. Lawrence G. Hanley, vice-president; and Dr. C. M. Daniels, secretary. An executive committee was created consisting of Drs. W. H. Slacer, Byron H. Daggett and Eugene A. Smith.

A training school for orderlies and male nurses was organised at the hospital under the supervision of Dr. B. H. Daggett, who delivered an introductory lecture. Two lectures each week by various members of the staff of physicians and surgeons were established.

In the fall of 1900 the construction of a new Emergency Hospital was commenced on the corner of Eagle and Pine Streets, by John Lannen, contractor. Green and Wicks, were the architects for the new building and the plans called for a three-story brick building with basement. The building was completed on these lines. The basement is used for clinical purposes, the first floor contains the primary wards and the second floor the

secondary wards. The surgeons and attendants are housed on the third floor. The Emergency Hospital is the accident branch of the Buffalo Hospital of the Sisters of Charity.

This new hospital was dedicated December 29, 1901, and soon afterward its doors were thrown open for inspection. A little later it was ready for the reception of patients.

Dr. Clayton M. Daniels, of the surgical staff, has recently furnished the *Buffalo Illustrated Express*, (January 12, 1902,) a history of the Emergency Hospital from its beginning from which we learn that the first Emergency Hospital was established in an unpretentious little building at the corner of Pine Street and Booth Alley on October 1, 1883. That institution was in existence exactly six months and during that time it treated 83 cases. The majority of those were railroad cases, as in those days grade crossings improvements and patent couplers were unheard of and the railroads furnished the bulk of the accident business. At the end of the six months it was found that the hospital was not commodious enough for the business and the institution was installed in the building which has just been vacated, at the corner of South Division and Michigan Streets. That was on May 1, 1884. Previous to the opening of the South Division Street institution the surgical work at the Emergency was done by Dr. Daniels and Dr. Byron H. Daggett. After 1884, Dr. Daniels took up the bulk of the surgical work with help from the staff of the Sisters' Hospital.

In the seventeen years it has been occupied as a hospital, the old building on South Division Street sheltered somewhat over 8,000 accident cases. Medical cases have been treated in addition, but the great majority of the cases were casualties, covering almost every range of human affliction. Burns, stabs, poisonings, bullet wounds, asphyxiation, drowning, snake bites, cat bites and dog bites, are some of the causes that contributed to swell the number and it is thought when the total for the entire life of the hospital is known it will show the number of cases to be slightly over 8,000. The total up to May 1st, 1901, was 7,342.

The announcement, was made in the summer of 1899 of changes in the staff at St. Mary's Maternity and Infant Asylum, on Edward Street, whereby the institution came under the medical and surgical management of the staff of the Buffalo Sisters of Charity Hospital. Dr. L. G. Hanley was announced as chief obstetrician; the attending obstetricians were Drs. Nelson W.

Wilson, Pierce J. Candee, C. J. Carr and D. V. McClure. Dr. W. H. Slacer was placed at the head of the medical staff. His assistants were Drs. Joseph P. Burke and James Stoddart.

BUFFALO GENERAL HOSPITAL.

The Buffalo General Hospital in the spring of 1899 was the recipient of a pleasant surprise, in the nature of a gift of \$5,000 from Mrs. Isabella Higgins Moore, of Bethlehem, Pa. This money was invested and the interest therefrom used for the maintenance of a bed known as the "Higgins Memorial Bed." The trustees, in accepting the gift, expressed their appreciation of Mrs. Moore's deep interest in the work of the hospital.

The hospital, about the same time, also received a gift of \$1,000 by the will of Milo R. Eames. A resolution was passed thanking the executors and family.

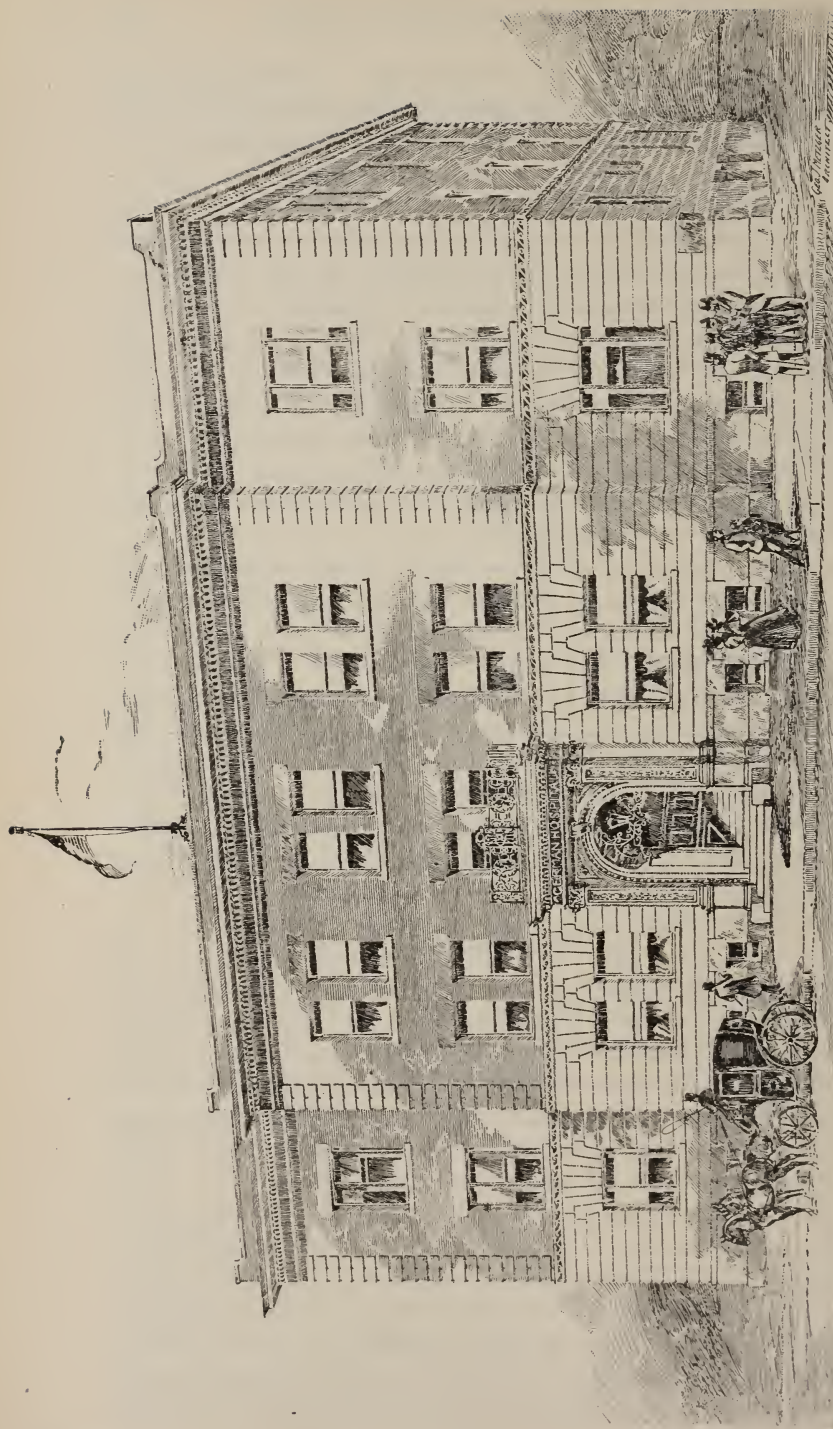
In July, 1899, Dr. Regina Flood Keyes was formally appointed assistant gynecologist on the attending staff. A new position was created, termed assistant to the surgical clinic, and Dr. Edward J. Meyer received this appointment.

In the autumn of 1900 this hospital adopted plans for an addition, the estimated cost of which was \$35,000. The additional building is 38 feet wide and 96 feet long. It is an extension of the wing built a few years ago, and corresponds in design and construction to it. The addition fronts on Elm Street. Architect George Cary prepared the plans and Jared H. Tilden built the structure.

GERMAN HOSPITAL.

The German Hospital, located on Jefferson Street, near Genesee, Buffalo, projected in 1895, mention of which is made on page 112, was opened for patients March 11, 1901. It is one of the finest hospitals in the country, whether considered from the viewpoint of construction, equipment, or hygienic arrangement. It has accommodations for about 72 patients, and both wards and private rooms are models of perfection.

The following-named medical and surgical staff was appointed: President, Charles H. W. Auel; vice-president, Marcel Hartwig; secretary, Charles Weil. Internal medicine—consulting physicians—Conrad Diehl, Emil S. Tobie, Thomas Lothrop; attending physicians, H. C. Buswell, William Meisberger, Julius Ullman, Robert Hebenstreit; surgery—consulting surgeon, Roswell Park; attending surgeons, M. Hartwig, Herman Mynter, J. G. Meiden-



THE NEW GERMAN HOSPITAL, JEFFERSON STREET.

bauer, Henry G. Bentz; gynecology—consulting physician, Matthew D. Mann; attending physicians, Charles H. W. Auel, Max Breuer, Herman E. Hayd, Sigmund Goldberg; obstetrics—consulting physician, Charles H. W. Auel; diseases of children, L. Schroeter, Charles Weill, H. C. Rooth; eye and ear—consulting physicians, Lucien Howe, Julius Pohlman; attending physician, Jacob Goldberg; nose and throat, attending physicians, G. F. Cott, W. S. Renner; skin—consulting physician, Ernest Wende; attending physicians, Grover Wende, J. Kraus, Alfred E. Diehl; genito-urinary diseases, Alois Jokl, Julian A. Riester; nervous diseases—consulting and attending physicians, W. C. Krauss, Floyd S. Crego, H. G. Matzinger; pathology, W. G. Bissell, H. R. Gaylord, J. A. Miller.

BUFFALO FRESH AIR MISSION HOSPITAL.

This hospital was opened at Athol Springs on the lake shore, on July 1, 1894. It was built on plans providing for the most approved system of summer hospital construction, and it is equipped with every modern appliance related to its purposes. Its location is as near ideal as could be, situated on a bluff overhanging Lake Erie, ten miles from Buffalo. It has 30 beds for patients, a commodious administration house with diet kitchen, rooms for the staff, nurses and help, and is reached in 25 minutes from the city.

Dr. Irving M. Snow was the founder of the hospital, at least it was his original suggestion, and it was mainly through his efforts that the proposition to construct such a hospital took root, though others contributed in time and money to work the plans to a conclusion. There are resident physicians, trained nurses, and other assistants on duty at the hospital. Drs. Irving M. Snow and Dewitt H. Sherman have constituted the visiting staff from the first, and one or both make daily visits to the hospital.

It usually opens July 1 each year and remains ready for patients for about ten weeks. It was originally intended for the care and treatment of children suffering from acute summer diarrheas, but its scope has been enlarged to include invalided children in need of country air, convalescents from acute disease, and for the treatment of those afflicted with tubercular bone diseases.

The present staff is as follows: visiting physicians, Irving M. Snow, Dewitt H. Sherman; surgeon, Eugene A. Smith; ophthal-



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BUFFALO FRESH AIR MISSION HOSPITAL.

mologist, L. Burrows, Jr.; assistant physicians, A. T. Lytle, N. G. Russell.

Number of patients treated in 1901, 90; number of deaths, 7.

The excellent work done by this hospital from its beginning is well known to almost all physicians, and to a large proportion of the inhabitants of Buffalo.

PAN-AMERICAN EXPOSITION HOSPITAL.

The officers of the Pan-American Exposition Company began to discuss the formation of a medical bureau for the fair, which should include a well appointed hospital, as early as mid-summer, 1899. The latter project did not take definite shape, however, until after the appointment of Dr. Roswell Park as medical director, which occurred in June, 1900.



EMERGENCY HOSPITAL AT THE PAN-AMERICAN EXPOSITION.

The plans culminated in the construction of a very pretty building near the west end of the mall. Floor area rather than elevation was a prominent feature in the construction, and utility was the prime consideration in the design, though adornment entered into the scheme. In conformity with the general exposition plan the free Spanish renaissance was treated, with a strong leaning toward the old mission interpretation.

With a frontage of 90 feet on the mall, the main wing had a depth of 38 feet with a height of but one story, except in the center, where it assumed the form of a square tower with a rounded top. This tower was two stories high, surmounted with two flagstuffs. One staff supported the exposition flag and the other the Red Cross banner.

A rear wing, one story high, extended back from the center portion a distance of 56 feet, with a width of 32 feet. The main hospital entrance was from the mall, opening directly into a rotunda decorated with tropical plants, pictures and drapery.

The main office was located at the farther left hand corner of the rotunda, under the staircase. It contained telephone, electrical annunciator, messenger call service, and other necessary appurtenances. The first floor front contained in the extreme western wing, two male wards with seven cots each, a bath room, physicians' office, a morgue and a linen chest. The eastern wing contained a ward for women, of a dozen cots, and a bath room. In this wing was an office for the superintendent of nurses, physician's private office, a linen closet and other conveniences.

The upper story was set apart for the use of the resident physician and the necessary attendants, fitted with four pleasant, comfortable bed rooms and a bath room. The rear wing, extending back from the main entrance, contained the operating room, sterilising department and instrument cases. Immediately across the hall was the emergency bath room and patients' waiting room. Still further down the corridor was located the kitchen, pantry and dining room, for the use of patients.

At this hospital the operation was made upon President McKinley, and which was begun within an hour after he was shot at Music Temple. The total number of patients treated at the hospital was 5,567.

The staff was: Dr. Roswell Park, medical director; Dr. Vertner Kenerson, deputy medical director; Dr. Nelson W. Wilson, sanitary inspector; Dr. A. F. Zittel, Dr. Alexander Allan, Dr. G. McK. Hall and Mr. E. C. Mann, resident physicians. Miss Adelia Walters, superintendent of nurses.

OTHER HOSPITALS.

The Buffalo State Hospital which, under the superintendency, of Dr. A. W. Hurd, has taken rank among the highest in the country for the treatment of mental diseases, is very much cramped for space,

It has reduced the per capita cost of treatment to the lowest in the state, and has yielded the maximum in results. It is greatly embarrassed by the lack of proper land area, and the propriety of renting a small farm in the vicinity of Buffalo has been discussed, where a limited number of patients could be employed in the care of cows and swine.

A marine hospital station has been proposed at Buffalo. The surgeon-general of the marine hospital service at Washington favors the project and it is hoped and believed that congress will soon pass a bill authorising the construction of a proper hospital. Hon. D. S. Alexander, M.C., has introduced such a bill, appropriating \$125,000 for the purpose. Such a building should be centrally located, and it would meet a demand that is constantly growing in this large port.

In September, 1899, the Riverside Hospital was removed from 306 Lafayette Avenue, to a new building, corner of Lafayette and Barton Streets, Buffalo. The structure now occupied is well adapted to the needs of the hospital, and the location is desirable. The continued prosperity of the hospital seems assured in its new location. Dr. Lillian C. Randall continues at its head.

The private hospital, formerly conducted at 304 Lafayette Avenue, was again opened for the reception of private patients in October, 1899. The management admits only the best class of private patients and aims to give them the best of care and attention. The hospital was newly furnished and made into a first-class private hospital, with all modern improvements and conveniences, and called the Lafayette Hospital. There is no staff of physicians in attendance; each physician sending a case has full control of the patient. Mrs. Lillian C. Lacey, who is in charge, is an experienced nurse and a capable manager.

The pavilion for consumptives at the Erie County Hospital was destroyed by fire on the night of March 21, 1900. It was a most unfortunate event, in that it deprived a large number of sufferers of the benefit of that institution. Fortunately, no lives were lost at the fire, but it is probable that the exposure incident to escaping from the burning building shortened the days of some of the patients. The building was of wood and burned so rapidly that some of the inmates barely escaped injury or worse. The lesson—a dear one—means that no building should be constructed for hospital purposes that does not meet all the modern requirements of safety from fire.

A new building was constructed on the old site, at a cost of \$50,000, ground having been broken in February, 1901.

A new isolation hospital to which should be attached a detention pavilion is among the greatest needs of the health

department of Buffalo. Health Commissioner Wende, during his last term of service made urgent demands upon the Common Council for the necessary authority to have such a hospital built, but without definite results.

Buffalo is an important port where hundreds of sailors are arriving and departing daily during the season of navigation, and when one becomes suspected of smallpox or other contagious disease there is no place to assign him pending the development of the case, except to the pest house.

During the summer of 1900, Health Commissioner Wende, was obliged to quarantine two vessels on account of smallpox suspects, much to the loss of the ships, but there was no other way under the existing conditions.

[To be continued.]

TRANSLATION.

The Etiology of Chorea and Its Treatment.

By DR. BESANÇON, Editor in Chief, and DR. PAULESCO, Secretary of the Editorial Department of the *Journal de Médecine Interne*, Paris.

[Translated from *Journal de Médecine Interne*, April 1, 1901.]

THE absence of any positive ideas on the etiology and pathogenesis of chorea has distinctly manifested itself in the treatment of this affection. That the different remedies proposed against the disease have not given satisfactory results, is easily to be understood in view of the inadequacy of the theories which serve as the basis of their use. Not one of these theories is acceptable, since they do not take cognisance of the entire group of symptoms. The theory that chorea is a neurosis does not rest upon a firm foundation, for chorea does not present any of the characteristics of a neurosis. It is not hereditary; it can be cured easily and perfectly and it is not a life-long ailment. The same arguments apply to the theory that chorea is a process of degeneration.

The articular and endocardial symptoms so frequent in chorea have led it to be regarded as a simple manifestation of rheumatism. Under the name of rheumatism, however, are comprised several diverse conditions, some of which have been interpreted as of neuropathic and others of microbial origin. Chorea is evidently not of neuropathic nature, as is shown by the presence

of endocarditis in some cases. On the other hand the articular manifestations of chorea differ from those of severe rheumatism, both in their clinical character and in their evolution. Chorea has been attributed to several special microbes, which have been described in detail, but whose specific character has not been proven. It has also been referred to an infection by ordinary bacteria, such as the staphylococcus, but its symptomatology does not correspond to that produced by these organisms.

Any one who takes account of all the conditions under which chorea develops, and the various affections from which it has its source, is led to consider this malady as of microbial origin, resembling rheumatic fever in its articular manifestations and in the presence of endocarditis, and, on the other hand, akin to whooping-cough and tetanus in the absence of fever and the existing motor phenomena.

As a matter of fact, chorea, like a majority of microbial maladies, is observed especially during childhood. Among 50 cases observed by us in the hospital during the last 14 years, 17 were aged less than 10 years; 29, 10 to 15 years, and 4 only between 15 and 18 years. Like acute rheumatism, chorea is an exception after the age of 20 years. While it has sometimes been observed in young pregnant females, 17 to 23 years old, it is chiefly met with in childhood.

Defective hygienic conditions furnish a distinct predisposing cause, its frequency being particularly great among children of the poorer classes. Insufficient nutrition, unhealthy dwelling places, impure air, moisture and want of sunlight, are among the principal factors which favor the development of chorea. Aside from these, it is more frequent during the cold season in the autumn and spring, and also often follows in the wake of febrile and exhausting diseases, such as eruptive fevers, pneumonia, and whooping-cough. Hence the same etiological conditions are concerned in its causation as in that of a number of germ diseases. Finally, the manifest augmentation of the volume of the pulse-rate demonstrated by us in six patients who have been under our observations is an argument in favor of this view.

Case I.—One of our patients, a little girl, suffered intensely with pains in the joints. We administered aspirin, a remedy which had given us excellent results in articular troubles, especially those of acute rheumatism. Three or four days later the pains had disappeared, but at the same time we noticed that the ataxic movements had completely ceased. This unexpected

result did not fail to attract our attention, the more so as the salicylates, which we had employed on several occasions in chorea, had not afforded any material effects. The same experience was more or less repeated in the other cases.

The following observations will serve to give an idea of the almost specific action of the drug in chorea.

Case II., G. J., 11 years old. Parents addicted to alcohol. Bad hygienic conditions, living in a damp dwelling. Choreia had been present since two years, following a fright; three recurrences having taken place at intervals. The involuntary movements were of moderate intensity, walking being possible. There were present articular pains and endocarditis. Aspirin, 30 grains daily, was taken for eight days. On the fourth day, there was a distinct amelioration; the choreic movements diminished, and finally disappeared, the patient recovering her entire health.

Case III.—B. F., 10 years old; intense chorea; walking impossible. The patient received aspirin, 22 grains daily. Six days later the choreic movements had almost entirely ceased, speech becoming normal soon after.

Case IV., C. N., 11 years old; markedly severe chorea; the patient unable to stand. On admission to the hospital her body was covered with ecchymoses, following falls and blows. The treatment consisted of aspirin, 40 grains daily. At the end of two days there was considerable improvement. The ataxic movements were no longer present, although the speech remained difficult, and the expression of her face remained stupid. Ten days later the patient was discharged cured.

Case V.—B. E., 11 years old. Intense chorea; unable to speak. She received aspirin, 30 grains daily. Three days later the patient commenced to talk; the choreic movements disappeared ten days after the commencement of treatment.

Case VI.—V. P. J., 11 years old. Slight chorea. Aspirin, 15 grains daily was given. The choreic movements disappeared at the end of ten days.

Case VII.—P. C., sister of the preceding; slight chorea. Aspirin, 15 grains daily. Cured after a number of days. Recurrence after a year; same treatment. Involuntary movements disappeared in the space of eight days.

Case VIII.—A. E., 12 years old. Marked chorea; standing erect impossible. Aspirin, 30 grains daily. *Rapid improvement; twelve days later the choreic movements had entirely disappeared.

Case IX.—P. E., florist, aged 18 years. Extremely marked chorea. No signs of hysteria. The patient was unable to stand

up. In bed she was so restless that each moment she threw the bedclothes to the ground. On November 2 she took aspirin, 45 grains. November 5, she was nearly free from the ataxic movements, except that the hands at times showed feeble involuntary contractions. November 14, the patient left the hospital.

Case X.—D. R., 6 years old; intense chorea, which was attended at its commencement with pains in the joints and mental disturbances. The little patient seemed to be idiotic and could not speak. Walking was almost impossible; the patient was also unable to keep herself in the upright position, the choreic movements being extremely intense. January 14 she received 15 grains of aspirin. The next day she was able to eat without assistance, and on the following day she talked well and walked about without aid. During the following days her condition remained stationary, the aspirin having been discontinued, but it was resumed five days later in doses of 30 grains daily. Three days afterward the choreic movements and the disturbance of speech had entirely disappeared.

Case XI.—D.V., domestic, aged 16 years; extreme chorea with inability to stand or walk about. The patient could not talk and alimentation was difficult on account of the trouble in swallowing. February 6, she received 45 grains of aspirin. Three days later she commenced to talk. The movements in the legs had ceased. She was able to hold herself up, but walking was still difficult. February 11, the discordant movements had entirely ceased, although the intellectual disturbances persisted and were even accentuated, the patient appearing to be idiotic. The aspirin was discontinued during six days, and then resumed in doses of 60 grains daily; but only a slow amelioration has since been demonstrated. Actually, however, the patient is on the road to recovery. She is able to eat well and is gaining in flesh.

The latter two observations show that if after taking aspirin for three or four days there is no distinct amelioration, or at least none of import, it is well to suspend the drug and to resume it at the end of several days in larger doses. It is advantageous to associate the use of aspirin with rest in bed, warm baths, liniments, and frictions with alcohol. The mode of life plays a very important part in the treatment of chorea, a milk diet being indicated in cases of anorexia: meats, and especially those finely hashed, fresh butter, eggs, and finally somatose, which has rendered us signal service in very rebellious cases, improve the general state of the patients, and thus promote recovery.

CLINICAL REPORT.

Report of Two Cases of Labor Following Ventral Fixation.

By L. G. HANLEY, M. D., Buffalo, N. Y.,

Gynecologist to the Buffalo Hospital of the Sisters of Charity.

CASE I.—Mrs. B., age 30, mother of two children, had one abortion in 1897, was admitted to hospital April 12, 1898; age at first menstruation, 14; menstruation prior to marriage normal; menstruation after marriage irregular, accompanied by considerable pain, severe dysmenorrhea; family history good. When first child was born, was confined to her bed for two months (as she says, with child-bed fever). When admitted to hospital, complained of severe pain in back and over region of left ovary. There was considerable leucorrheal discharge. Examination revealed a mass on left side of pelvis—pyosalpinx?

There is a retroversion of the uterus, with prolapse. Patient prepared for abdominal section. On opening the abdominal cavity there was found a large pyosalpinx on left side, with uterus bound down by adhesions. Tube and ovary on left side removed, adhesions broken up and uterus anchored to anterior abdominal wall.

The method used was the following, which has been my method on several occasions: peritoneum stripped off for about one inch on either side of incision; serosa of uterus nearly corresponding with the size of peritoneum, stripped off from each side of uterus. Raw surface of peritoneum and raw surface of serosa are brought in apposition, and united by a few stitches of fine catgut, but not until a braided silk suture has been passed through the skin, fascia, muscle, but not the peritoneum, extending from one cornu of uterus under the serosa to the other cornu and going through on the other side of incision, through the muscle, fascia and skin. A silkworm-gut suture was passed anteriorly, going through skin, fascia, muscle and peritoneum, another posteriorly going through skin, fascia and peritoneum; these, together with the braided silk suture, closed the abdominal wound.

Patient left hospital in three weeks. Was examined by me one year after, when uterus was found to be in normal position. Menstrual function normal.

May 31, 1901, was delivered by me of a 7½ pound boy; labor normal in every respect; vertex presentation, position L. O. A.

CASE II.—Mrs. S., age 29; admitted to hospital May 15, 1900; number of children, 2; number of abortions, 2; was

curetted in January, 1900, having had an abortion; complained of pain in the back and abdomen and flows profusely at menstrual periods; great pain at defecation. Examination revealed incomplete laceration of perineum and a large swelling in left side of pelvis; also slight prolapse with retroversion.

Patient prepared for operation. On opening the abdominal cavity a large hematosalpinx was discovered in left side, which was removed. The uterus was anchored to the anterior abdominal wall by the same method as described in previous case. Specimen was $4\frac{1}{2}$ inches long by 3 deep. Perineum was repaired. Left hospital in twenty days.

September 24, 1901, was attended by me during confinement; labor normal; vertex presentation; position L. O. A. Cervix seemed the same as in any other case of normal labor—was not retracted beyond the ordinary and patient made a good recovery. Baby weighed 6 pounds 2 ounces. Uterus still in good position.

I report these two cases, as they are the only ones out of a record of fifty-three of ventral fixation, that have been delivered by me. I have learned that some of the cases operated on by me have borne children after operation, but can only speak definitely of the two here presented.

Medical Society of the County of Erie.

Eighty-first Annual Meeting.

REPORTED BY FRANKLIN C. GRAM, M. D., Secretary.

THE eighty-first annual meeting of the Medical Society of the County of Erie was convened at 10.20 a.m., January 14, 1902, by Dr. WM. C. PHELPS, president, in the parlors of the Y.M.C.A., Buffalo.

The minutes of the previous meeting were read and approved.

Dr. WILLIAM WARREN POTTER, chairman of the committee on membership, presented the name of Dr. H. Arnold Pierce, of Blasdell, and recommended his election to membership. His recommendation was adopted.

President PHELPS called vice-president WARD to the chair and then delivered his annual address, in which he briefly reviewed the history of the society and made certain important recommendations. (See page 486.)

Librarian CALLANAN asked permission to have the books of the society, now in the library of the University of Buffalo, indexed by the librarian of that institution, and also that he be

permitted to issue a circular to members requesting donations of medical works published during the past century. His requests were granted.

Chairman COAKLEY, of the Board of Censors, submitted the following report:

BUFFALO, N.Y., January 9, 1902.

To the Medical Society of the County of Erie:

Gentlemen—Your board of censors respectfully reports that since its last report made to the Society in June, 1901, the censors have continued their work of investigating cases of alleged illegal practitioners of medicine and surgery.

During the past half year complaints have been lodged against numerous persons engaged in business and advertising themselves as Dr. so and so, palmist, magnetic healer and other descriptions of a like character. Whenever a complaint has been made to your board in reference to any party thus advertising, investigation has been made and wherever it was found that the law was being violated the parties have been warned, and in every instance your board believes that the parties so engaged in violation of the law have left the city or ceased such violation.

There has also been a complaint lodged with the board of censors against William H. Barrett, who was advertising himself as "Dr. William H. Barrett, eye specialist, etc." Upon investigation, it was found that Mr. Barrett was unlawfully advertising himself as "Doctor" and upon being warned he at once discontinued the use of such title in advertising. Several other instances of parties claiming to be specialists in some particular line have been reported to your board as illegally using the title "Dr." in their advertising matter, upon signs, etc., and in every instance your board has warned the parties so violating the statute, and upon such warning being given the illegal signs have been taken down and illegal advertising discontinued.

Perhaps the most important case since our last semiannual report is that of Prof. A. J. Wiechers, who advertised himself as "Antonius, the boy phenomenon," with offices at No. 685 Main Street.

In the early part of December, 1901, complaints were made to your board by several parties who had been induced to receive treatment from Prof. Wiechers and his alleged staff of physicians, that said professor and his assistants were illegally practising medicine, and the chairman of your board upon investigation learned that such complaints were well founded and visited the offices of Prof. Wiechers and his staff, at 685 Main Street, and warned them that they must either comply with the statutes of the State of New York or discontinue such practice of medicine. It appearing that such warning was unheeded the chairman of your board thereafter caused warrants to be issued for the arrest of Professor Wiechers and the alleged consulting physi-

cians, J. H. McCaffrey, William Rear, Otto Urban and A. L. Salter.

The police officers were unable to find and serve the warrants issued against Otto J. Urban and William Rear, said parties having apparently left the city, or being merely fictitious names, used for the purpose of duping the public by the "Boy Wonder Antonius."

Upon the hearing before Judge Murphy of the Police Court, it appeared that A. L. Salter was duly registered as a physician and surgeon under a slightly different name and he was discharged. It also appeared that J. H. McCaffrey had, subsequent to the warning given by the chairman of your Board of Censors, complied with the statute and had registered himself as a physician and surgeon, and upon such fact appearing, your chairman permitted the proceeding against him to be discontinued.

Prof. A. J. Wiechers, otherwise known as Antonius the Boy Phenomenon, was held by Judge Murphy for the Grand Jury under bail of \$200. Your chairman has since consulted with the District Attorney of Erie County in reference to the case, and the matter will be presented to the Grand Jury on the 10th day of January, 1902, or as soon thereafter as the business of the District's Attorney's office will permit, and your board of censors confidently expects that an indictment will be found against him.

In conclusion this board respectfully recommends that the Hon. Tracy C. Becker be continued as counsel for the board as heretofore, and that this board be given authority to employ such detectives and other agents as may be required for the performance of its duties, and to draw upon the treasury as before for their reasonable compensation.

All of which is respectfully submitted.

J. B. COAKLEY, *Chairman.*

H. R. HOPKINS.

FRANCIS E. FRONCZAK.

IRVING W. POTTER.

On motion the last paragraph was so changed as to permit the board to employ any attorney at its discretion, and the entire report was then adopted.

The president appointed Drs. Wm. C. Krauss, Abbott and Clements a committee on nominations. They submitted the following nominations, who were all duly elected: President, Walden M. Ward, North Collins; vice-president, Ernest Wende; secretary, Franklin C. Gram; treasurer, Edward Clark; librarian, Wm. C. Callanan; censors, J. B. Coakley, chairman; H. R. Hopkins, Henry C. Lapp, F. E. Fronczak, I. W. Potter.

Committee on legislation: Ernest Wende, William Warren Potter and Edward Clark.

Additional delegates to the Medical Society of the State of New York: C. A. Clements, W. D. Bidaman, J. J. Twohey, E. M. Dooley, B. S. Bourne, Wm. G. Taylor.

Delegates to the Medical Association of Central New York: Drs. Thomas G. Allen, B. Bartow, Geo. L. Brown, Geo. F. Cott, C. C. Frederick, F. W. Hinkel, H. R. Hopkins, S. Y. Howell, Max Keiser, M. D. Mann, J. W. Putnam, DeLancey Rochester, G. W. York and S. H. Lynde.

Treasurer CLARK submitted his annual report which, with the books and vouchers, was referred to Drs. Potter, Callanan and Walsh for audit. The committee reported finding them correct.

Dr. JOHN H. GRANT presented the following resolution:

Resolved, By the Medical Society of the County of Erie, State of New York, that the committee on legislation of the Medical Society of the State of New York, be requested to urge and aid the passage in the Assembly and Senate, the bill of the Hon. Mr. Nye, amending the public health laws by excepting regularly licensed and practising physicians of this state from the prohibitory clause which prevents said physicians from conducting a drug store, as the preparation of medicines, as well as their administration comes within the privileges of the practice of medicine.

Resolved, That the delegates of this society accredited to the Medical Society of the State of New York are requested to aid by all proper means the passage of said bill by securing the coöperation of the state society to that end.

The resolution was adopted.

Dr. C. E. CONGDON made a brief verbal explanation regarding the work of his special committee.

Dr. A. L. BENEDICT offered the following resolution, which was adopted:

Resolved, That the Medical Society of the County of Erie memorialize the Medical Society of the State of New York, requesting such action by the latter, at its stated meeting in the current month, as may lead to representation in the American Medical Association, of the Medical Society of the State of New York.

Resolved, That, in like manner, the Medical Society of the County of Erie express its earnest desire for the unity of the regular medical profession of the State of New York.

Dr. ERNEST WENDE, former health commissioner of Buffalo, read a paper on the Diagnosis of Smallpox, and Dr. Walter D. Greene, health commissioner of Buffalo, gave a very interesting statement relative to the present epidemic of smallpox here and elsewhere. (See page 492.)

These papers elicited some very interesting discussions, participated in by Drs. Wetmore, George Abbott, O'Brien, Krauss, S. S. Greene and Pettit.

Dr. WM. C. KRAUSS introduced the following resolution, seconded by Dr. S. S. Greene and unanimously carried.

Resolved, That in view of the difficulties encountered and the great expense incurred in the care, treatment and isolation of smallpox cases and in further view of the important bearing on health and life it is the sense of this meeting that a new modern isolation hospital is of immediate necessity, and furthermore, that we pledge our best efforts towards accomplishing such results.

Dr. GEO. F. COTT read a paper on Sinus thrombosis following acute sore throat.

A vote of thanks was tendered the essayists and all the officers, after which the society adjourned.

PROGRESS IN MEDICAL SCIENCE.

Genito-Urinary and Syphilitic Diseases.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

TECHNIC OF FIXATION OF PROLAPSED KIDNEY.

GOELET, AUGUSTIN H. (*American Medicine*, December 28, 1901,) states that prolapse of the kidney is a surgical condition, because it does not admit of cure by any other means.

In general enteroptosis, the prolapse of the kidney produces more serious consequences than the prolapse of the other abdominal organs, as the interference with its function produces more serious consequences. The relief of nephroptosis lessens the ptosis of the other organs. The operation in itself involves no risk.

A prolapsed kidney, which produces discomfort or ill health demands operation, because: (1) there is no other certain means of cure; (2) there is the tendency to progressive prolapse; (3) prolonged prolapse produces congestion and softening; and (4) it may cause serious obstruction to the function of the kidney. The patient should be as carefully prepared as for abdominal section.

Technic of the Operation.—The patient is placed upon the table on the well side, with the under arm drawn out and the thighs flexed. A deep wedged shaped pad is placed under the

loin to push the abdomen up, increase the costo-iliac space and crowd the kidney into place. The kidney will then be within reach when the fatty capsule is exposed. Make the incision along the outer border of the erector spinæ muscle downward for about three inches parallel with the spine, beginning at the lower margin of the twelfth rib. The distance from the spine will be three and a half to four inches, according to the width of the back. Cut down to the superficial fascia, covering the muscles and cut this fascia with scissors to the length of the external wound. Separate the muscles outlying the erector with blunt scissors and blunt hooks, making traction toward the extremities of the opening. Broad, strong retractors are inserted to retract forcibly the separated muscles. The erector spinæ can usually be retracted by including its border in the retractor on that side; if not, carefully divide the fascia with blunt scissors. This exposes the quadratus lumborum. Separate the fibers of quadratus with blunt hooks, so that the iliohypogastric nerve and vessels may be drawn aside with the retractors. Open the deep fascia and the kidney will bulge up into the wound. Include this fascia in the grasp of the retractors and stretch the wound to its fullest extent. Then draw down the fatty capsule and open it with blunt scissors from the center of the wound to its upper limit. Grasp the margins of the capsule with T forceps and draw the kidney up into the wound. If the capsule is adherent carefully separate it from the margins around and under its lower pole, nearly to the ileum. This gives a considerable area of its surface for approximation and adhesion to the muscles of the back.

It is not necessary to strip off or scarify the fibrous capsule to secure adhesion. Hold it immovably in position for a sufficient length of time and it will adhere.

There should be two fixation sutures inserted upon the lower half of the kidney, so that the upper part may be drawn up in place under the ribs.

The fixation sutures, of which there should be two, are inserted upon the lower half of the kidney so that the upper part may be drawn up into place under the ribs. A small, short, full curved needle, threaded with silkwormgut (made pliable by boiling in lysol solution) is inserted first upon the outer part of the exposed kidney surface from above downward, somewhat obliquely to the long axis of the kidney, and the suture drawn through; then it is inserted transversely and again from below upward in the same manner as in the first insertion, but on the

opposite side of the exposed surface. The insertions of this suture are superficial, penetrating only beneath the fibrous capsule so as not to wound the deeper kidney structure. The free ends of this suture are caught with pressure forceps to prevent the suture from being pulled out while the second suture is being inserted.

The second suture is inserted above the first, but in a somewhat different manner, there being no transverse insertion, but an exposed loop of the suture on the outside of the fibrous capsule.

This form of suture will bear greater strain than the usual transverse suture. These sutures are passed 'underneath the fibrous capsule, as the kidney substance possesses no more resistance than firm butter.

After both sutures have been inserted in the manner described the free ends of the upper suture are threaded successively into a long curved perineal needle which is then inserted from within the fatty capsule at the upper angle of the wound and brought out on the skin surface on a level with the extreme limit of the upper angle of the wound about a quarter of an inch from the margin, penetrating all the structures of the back. The suture end is then detached from the needle, which is withdrawn, leaving the suture in place. The other end of the suture is carried through the structures of the back on the opposite side in a similar manner. The free ends of this upper suture are caught with pressure forceps and the ends of the second suture carried through the structures of the back from within the fatty capsule in the same manner, and are brought out a short distance below the other. The ends of this suture are also caught with pressure forceps.

The redundant fatty capsule is trimmed off on a level with the bottom of the wound on both sides, but that part below the recent location of the lower pole of the kidney is not disturbed. The wound, including the pouch within the fatty capsule below the kidney, is now flushed with warm, salt solution, carefully wiped dry, and the retractors removed. The sustaining sutures are tightened, bringing the upper pole of the kidney up under the last rib, and then tied, the upper one first, over a fold of several layers of gauze placed lengthwise at the upper angle of the incision.

The sustaining sutures are tied over a fold of gauze, so that they will not loosen by cutting into the skin.

Before closing the wound a long strip of gauze is packed under and around the lower pole of the kidney, filling the space occupied in its prolapse, thus bolstering the kidney, and lessening the strain on the suture, exciting plastic inflammation and affording drainage. The walls of the wound will fall together, although it is best to stitch the superficial fascia with two or three intercepted sutures. Approximate the margins of the skin with narrow strips of adhesive plaster. The gauze drain is removed the third or fourth day, the patient to remain in bed on the back, or only turn on the side of the operated kidney for three weeks. The retaining stitches are removed after the patient gets out of bed. For a time an abdominal support should be worn and exertion or strain avoided.

ABSTRACT.

The Treatment of Cough with Heroin.

HENRY HERMAN, New York, (*Denver Medical Times*, May, 1901,) says that heroin has now been tested in such a large number of cases, by such trustworthy observers that its status is becoming fixed with certainty. He thinks the result of clinical and pharmacological experience is to designate heroin as a respiratory sedative superior in every respect to the older narcotics, and, withal, devoid of toxic or depressant properties. Its physiological action consists in a diminution of the frequency of respiratory movements, and at the same time in an increase of the volume of the individual respiratory act. The reduction of the tussal reflexes is combined with the relief of pain without the danger of a drug habit, which exists when other opiates are prescribed.

In regard to the after-effects he accepts the conclusions of Manges, that heroin is not followed by serious effects of an untoward character unless it be administered in excessive doses. His own observations, drawn from a large number of cases, tend to confirm this view.

There is, he thinks, a tendency to constipation, especially in old persons; easily combated, however, with mild laxatives. But it is to be remembered that heroin is a derivative of morphine, and therefore it is to be used with that caution and judgment, which drugs of this class demand. Fortunately its very efficiency

precludes the necessity of administering doses of any magnitude beyond the usual.

Herman, in the course of his paper, reports a group of 19 cases of all kinds treated with glyco-heroin, which he classifies and comments upon as follows:

Of the 19 cases reported, there were 10 cases of whooping cough in patients ranging from $2\frac{1}{2}$ to 38 years of age. In these the dose varied, according to age, from 10 drops to a teaspoonful, the intervals not exceeding four hours. The results were very satisfactory in all cases, with the single exception of case 4, a mild type of whooping cough in a patient aged 38 years, in whom nothing but a change of climate had the desired effect. In the other a case of pertussis, there was very prompt diminution of the number and severity of the paroxysms and an improvement in the general well-being of the patient. These effects were all the more noteworthy as they are rarely seen in pertussis on the administration of any other sedative remedy.

In the 3 cases of subacute bronchitis, the results were so prompt as to astonish the patients themselves. With due care the continuation of the catarrhal process into a chronic state was avoided.

In the two cases of cough, occurring during pregnancy, glyco-heroin proved very efficient. Of all forms of cough, sedatives are most urgently indicated in the irritable condition of the whole system which obtains in the pregnant state. In glyco-heroin I found a palatable combination which at the same time is free from the depressant properties of the other opiates.

There were four cases of chronic bronchitis, the age of the patients ranging between 27 and 81 years. As has been noted by other writers, heroin is not so well borne by the aged as it is by the young. The dose must therefore be kept down in old people, and it is for this reason that in one of the cases, No. 17, in which the patient was 81 years old, no results could be obtained. In contrast to this case stand the other two instances of chronic bronchitis in the aged (persons aged 73 and 78 years respectively,) in which the effect was all that could have been wished.

He says, in conclusion, that while there probably never will be a remedy which will act with equal efficiency in all cases, the results which I obtained with glyco-heroin in a number of difficult and obstinate cases of cough, enable me to express myself as fully satisfied that it is an efficient respiratory sedative and expectorant.

CORRESPONDENCE.

The Maltine Company's Prizes.

Editor Buffalo Medical Journal:

Sir.—Supplementing the new advertisement sent to you on the 8th inst., I enclose herewith a circular which is now being mailed to every physician in the United States. This, I think, is one of the most unique enterprises in which our company has ever engaged, and that much interest and comment will follow its promulgation.

The scheme has been under consideration for some time, a number of the leading practitioners in various parts of the country have been consulted concerning it, and cordial approval was signified in every instance.

The prizes are large, the judges of high standing, and the conditions governing the competition are such as to enable the most ethical of men to compete without compromising themselves. You will notice that the three judges are not only men of the first rank, but represent different sections of the country and different branches of the profession, Dr. Lewis being a surgeon and editor of one of the leading medical journals, Dr. Reed, a gynecologist and former president of the American Medical Association, and Dr. Rhodes, a purely medical man.

Then, again, the subject is such a broad one that every intelligent practitioner, whether he makes a specialty of surgery, pediatrics, gynecology or internal medicine, or is simply an all around family doctor, can write upon it.

We depend very largely upon our friends in medical journalism to bring this matter properly and effectively before the medical profession, and I feel sure your coöperation and support can be depended upon.

CHARLES C. HEUMAN,
Secretary Maltine Company.

BOROUGH OF BROOKLYN, NEW YORK CITY, January 10, 1902.

FETOR OF BREATH.

R	Thymoli	gr. viij
	Alcohol	fl. $\bar{3}$ j
	Glycerini	fl. $\bar{3}$ iv
	Formaldehydi (40 per cent. sol.)	gtt. viij
	Aqua, q. s. ad	fl. $\bar{3}$ iij

M. Sig.—Use as a mouth wash. Indication: Used in fetor from decayed teeth.—*Maryland Med. Jour.*



JOSIAH TROWBRIDGE, M. D.

1785-1862.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

All communications, whether of a literary or business nature, books for review and exchanges should be addressed to the editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XLI.—LVII. FEBRUARY, 1902.

No. 7.

Wanted—An Isolation Hospital.

AMONG the present needs of Buffalo that are urgent, in our view, quite the most important is an adequate isolation hospital with a detention annex. A city of the commercial importance of Buffalo,—the fifth port in the world and a great manufacturing center,—should not suffer for the want of any municipal action that would serve to advance its interests or protect its citizens. Especially should the inhabitants enjoy the best possible safeguards against epidemic catagious diseases.

It has been the boast of this city that its death-rate was the lowest in the world according to its population, a record that is due to the tireless energy of the former health commissioner, Dr. Ernest Wende, more than to any other one cause. But it will not answer for a great city to remain inactive, counting upon its record and resting upon its laurels. It must be progressive, active, alert, and indeed aggressive if need be in order to maintain its standing and rank in this restive world and impatient age. There is nothing so good that it ought not to be made better, nothing so perfect that it may not be improved.

It is with great satisfaction that we contemplate the efficiency of our health department, but every intelligent person knows that it must be supported by an enlightened public sentiment, as well as by ample pecuniary aid, in order to make its influence and scientific work available for the best results in the economics of public sanitation. No matter how energetic the officials of the department may be, the city must provide the necessary funds and equipment, to enable them to prosecute the work, else there will be shortcomings if not failures in results.

That a new modernly appointed isolation hospital is sorely needed in Buffalo, is known to most people here who are at all observant of the public needs. If any such remain to be convinced let them read what the present commissioner of health, Dr. Walter D. Greene, says in regard to the so-called quarantine station now in use in his paper on *The Present Outbreak of Smallpox in Buffalo*, printed elsewhere in this edition. The former health commissioner presented the subject over and again to the council, but no heed was paid to his appeals. Now Dr. Greene presents the matter in such a light, and his pen picture is so graphic, that to delay longer the construction of an adequate building will create a public scandal.

Let the council move at once and authorise the erection of a hospital under the direction of the health commissioner which shall combine an isolation hospital and a detention pavilion under one management. In this large port a suitable detention hospital should be provided where contagious suspects could be sent without detaining vessels under quarantine, pending the development of such cases.

The Streets.

THE streets of Buffalo, for some years past have been the pride of our citizens. To the summer visitors they present an attractive, cleanly appearance, and our 250 miles of smooth pavement make us the envy of all observers from less fortunately paved cities. For about nine months of the year we are entitled, with great justice, to this praise and envy; but what shall we say for the remainder of the year?

In the winter season, with heavy falls of snow at repeated intervals which is scraped into ridges and heaps by the remorselessness of the Street Railway Company, there is little comfort in driving into the business part of the city with any kind of a vehicle, on runners or wheels. Indeed, it is almost impossible to approach a shop on either side of our principal business streets without danger to horses, since they are liable to fall into the gutter.

The mildness of the present winter has developed into frequent thaws, and so this season our bad streets have put in an appearance earlier than usual. The present commissioner of public works offers as an excuse for not cleaning the streets that

funds are low early in January, there being but \$4,000 left to last out the season. If Colonel Ward is correctly reported he replied, in substance, to a recent question as to why the streets were not cleaned, that it would be foolish to clean Main Street or any other street at this time; that it would be a useless expenditure of money; that a snow storm is likely to come upon Buffalo at any moment and that all the work would have to be done over again, with probably the same result.

Here is logic dealt out in chunks! Don't clean the streets now, because by and by they will get dirty again, so what's the use? We have been treated year by year with the cry "short of funds" by the public works office, but here is a new reason offered by the new commissioner.

We have over and again pointed out in these columns, that the most economical way to deal with the poor is to employ them. We need not repeat the argument here. It ought to be patent to every public official. The streets should be cleaned, likewise on economic grounds. When they are filthy health is endangered; moreover, the thick layers of ice and slush, which alternate as the weather changes, serves to decay the asphalt pavement. Therefore for these two reasons,—economy in health and economy in money,—let us have done with this perennial excuse of no money, and for once have a sufficient sum appropriated to last the season through and give us clean streets. Our contention is that the business streets should be cleaned from curb to curb during every thaw, no matter whether in mid-winter or late spring.

The Deputy Commissioner of Health.

DR. EDWARD CLARK has been appointed deputy commissioner of health, vice Walter D. Greene promoted commissioner. The appointment was announced by Dr. Greene about Christmas day, just after the January edition of the JOURNAL had been printed.

Dr. Clark was born in Buffalo, October 28, 1852, and received his preliminary education in the public schools of this city, including two years at the high school. He became a teacher, himself, and through this means earned money to prosecute his medical studies. He entered the Cincinnati College of Medicine and Surgery in 1876, and received his doctorate degree from the medical department of the University of Buffalo, February 25,

1880. He immediately began the practice of medicine in his native city which he has continued to the present time.

During these years he has held the office of postmortem examiner to the coroner, physician to the county jail, sanitary inspector for the health department, and, finally, health physician, as it was then termed, which latter office he held in 1888.



EDWARD CLARK, M. D.

During his term there was an outbreak of smallpox, that he stamped out in short order. His experience then has served the city a good turn in the present epidemic.

Dr. Clark taught anatomy at the Niagara University for some years, and was a lecturer on special surgery at the University of Buffalo for about two years. He is attending surgeon at the

Erie County Hospital and was surgeon of the Emergency Hospital in 1885, and assistant at the Sisters' of Charity Hospital at the same time. He is a member of the Medical Society of the County of Erie, of which he is also treasurer; a member of the Medical Society of the State of New York, and of the American Public Health Association. He is the author of several medical monographs. He is a member of the legislative committee of the Medical Society of the County of Erie, and has attained reputation as a fearless, clear, and forceful speaker before legislative committees at Albany.

From all this it would appear that not only is Dr. Clark what we like to term in this country a self-made man, but his training and experience has been such as to particularly fit him for service as one of the chief officers of the health department, being second in authority and, during the absence of the commissioner becomes the temporary head. The commissioner, the city, and the profession of medicine, one and all, are fortunate in the appointment of so energetic, capable, fearless, and honest a deputy commissioner of health.

The *Buffalo Morning Express* said editorially December 25, 1901, of Dr. Clark's appointment:

A majority of physicians would agree that Dr. Edward Clark is the man best qualified to be assistant health officer. He was health physician under the old charter and he has been connected with the department almost continuously ever since. He has held various other offices of a similar character. Apropos of the present situation, he has had great experience in caring for smallpox. He is a man of proved executive ability and energy. He is both a student and a skilful practitioner of medicine.

Even those physicians who objected to Dr. Greene's promotion have only words of praise for his new chief assistant. Under Drs. Greene and Clark the health department should not decline in efficiency or public esteem.

DR. ERNEST WENDE on his retirement from the office of commissioner of health of the City of Buffalo was the recipient of a public dinner, tendered by the citizens independent of political or professional affiliation.

The invitation to Dr. Wendé read as follows:

BUFFALO, December 27, 1901.

Dr. Ernest Wendé, No. 471 Delaware Avenue, Buffalo:

My Dear Doctor Wendé.—As an expression of their appreciation of your efforts as health commissioner of the City of Buffalo

in safe guarding the public health, in advancing the knowledge of the public in sanitary science and in maintaining the efficiency of your department to an extent that has won for you and it a national reputation, the undersigned, with many other citizens, desire to tender you a banquet, to be held on the evening of January 4, 1902, at 7 o'clock, at the Ellicott Club.

Will you kindly indicate at your earliest convenience your desire in this matter?

Charles Cary,	J. J. Albright,	Charles G. Stockton,
John H. Williams,	F. P. Lewis,	John G. Milburn,
John H. Pryor,	William A. Douglas,	H. M. Watson,
J. N. Larned,	Charles E. Walbridge,	S. M. Clement,
L. L. Babcock,	John Parmenter,	Edmund Hayes,
J. N. Adam,	Wm. B. Wright, Jr.,	Simon Fleischman,
E. R. Rice,	Ottomar Reinicke,	Adelbert Moot.

Here is Dr. Wende's reply:

Dr. Charles Cary, J. J. Albright, S. M. Clement and others:

Gentlemen—I know not why a banquet should be tendered me as an expression of appreciation for my efforts as health commissioner of the City of Buffalo.

The conscientious performance of the labors connected with that responsible office was simply an act of duty and does not entitle me to any extraordinary manifestation of public approval. Nevertheless, it is a great satisfaction to receive an expression of approbation, after ten years' service, from those whose esteem I have endeavored to deserve, and with grateful thanks I yield to your desire by accepting the date you name, January 4, 1902, for the proposed dinner.

Yours most respectfully,

ERNEST WENDE.

BUFFALO, December 28, 1901.

At the appointed time about 170 diners assembled at the club rooms to welcome the guest of honor. The material feast was all that could be desired and after it was over speeches were made approving Dr. Wende's administration, and deprecating his retirement. Dr. Charles Cary presided and the speakers were John G. Milburn, J. N. Larned, John H. Pryor, and Henry R. Hopkins.

Dr. Charles G. Stockton offered resolutions commending Dr. Wende's administration of the health department, and Mr. George P. Sawyer in behalf of those present presented to Dr. Wende a magnificent silver cup. In making the presentation Mr. Sawyer paid deserved tribute to the ability and faithfulness of its recipient.

In reply Dr. Wende said:

I deeply appreciate the kind words spoken of my administration of the health department, and the kind words accompanying the beautiful cup which you have given to me. They exceed any merit of my own, yet I accept them with pride and gratitude as evidence of your regard and approval of my official conduct. I recognise in your compliments appreciation of that honorable professional ambition, which should characterise the work of any official. Sanitary science is based on correct interpretation of facts, and if any benefits have followed my efforts it was because of my conscientious administration of a public trust. I have tried to educate the people that they must take care of their health, if they would live. Your keepsake, this beautiful cup, shall have an honored place among my treasures, and I shall always remember this occasion with unalloyed pleasure. I regret that I cannot more adequately express the gratitude I feel toward you.

The employees of the health department presented to Dr. Wende, as he retired from the office of health commissioner, a solid silver table service of more than 100 pieces in a chest of silk-lined oak. Herbert W. Hill, the city chemist, made the presentation speech and Dr. Wende made appropriate response.

THE Maltine Company, of Brooklyn, N.Y., has quite surprised the medical profession, if not astonished it, by the offer of two prizes—one for \$1,000, and one for \$500—for essays upon preventive medicine. In our regular advertising pages will be found an announcement of this action, and in its appropriate place under "Literary Notes" will be found a full statement of the conditions governing the award.

Furthermore, in our correspondence column Mr. Charles C. Heuman, the secretary of the company, gives an elaboration of the scheme that deserves to be read in its relation to the other statements referred to. This was a personal letter to the editor, but it states the object so well and is such an appropriate supplement to the others, that we prefer to let the accomplished secretary, himself, speak for the Company, rather than to attempt such a rôle ourselves, which we feel sure would be less graceful and effective.

This competition will, of course, be eagerly entered by hundreds of capable physicians, and the result will be looked forward to with anxious expectation. It will undoubtedly yield valuable contributions to the literature of preventive medicine. The Maltine Company deserve congratulations upon its liberal spirit and generous offer.

THE anti-spitting ordinance is to be enforced as it applies to the street cars. A recent conference between the health commissioner, Dr. Greene, and the superintendent of the Buffalo Street Railway Company was held on the subject, which resulted in posting the following notice in the cars:

Spitting on the floor of this car is prohibited by law and is punishable by a fine of from \$2.00 to \$100 for each offense. Policemen are instructed to arrest and remove from the car any passenger violating the provisions of this act.

WALTER D. GREENE, M. D., Health Commissioner.

Would it not be wise to appoint each conductor a special officer to aid in the enforcement of the law?

THE Commissioner of Pensions has reduced the estimates for his bureau for the next fiscal year by more than \$5,000,000 less than for the current year. This is a wholesome showing and is in accordance with the predictions of the commissioner in previous reports. The economic, patriotic and able administration of the pension office by Commissioner Evans, ought to be the pride of every American citizen. Such officials should be kept in public office as long as they can be persuaded to stay.

DISTRICT-ATTORNEY JEROME, of New York, has set a splendid example of official duty in his action regarding the recent tunnel horror at New York. It is related that as soon as he heard of it, sitting in his office and busily engaged though he was, he dropped everything and proceeded to the scene, thus familiarising himself with the facts, before they could be changed or colored by lapse of time. He also appeared at the coroner's court and conducted the case for the county, successfully opposing the appearance of counsel for any accused person or corporation. When an attorney for the people manifests this high conception of his duty, and sets up these high ideals, the other similar officers throughout the state may well ask whether they had not better bestir themselves on similar lines.

THE osteopathy bill is up again in the legislature. This subject is so well understood through its full discussion in the newspapers and medical journals last year and this, that very little remains to be said about it. Recent editorials in the *Buffalo Enquirer* and *New York Tribune* have presented the question with calmness and intelligence. We advise our members of the legislature

to read them. The *Enquirer's* date is January 22, and the *Tribune's* January 23. It would seem to be the height of inconsistency, if not folly, for the legislature to set up a standard for medical practice that is nearly perfect, and then proceed to nullify it by class legislation.

PERSONAL.

DR. ALICE BARLOW BROWN, of Chicago, upon the request of a number of homeopathic physicians of this city, has decided to take up her residence in Buffalo and practise her profession. It is expected that Dr. Brown will succeed to the practice of the late Dr. Jessie Shepard. Office and residence: 36 Irving Place. Hours: 11 to 3 and 7 to 8 p.m.; Sunday, 3 to 4 p.m. Telephone, Tupper 292.

DR. G. FRANK LYDSTON, of Chicago, visited Buffalo January 21, 1902. In the afternoon he visited Niagara Falls in company with some Buffalo physicians, and in the evening he read a paper before the Buffalo Academy of Medicine, entitled, Relation of evolution to infection, with special reference to venereal diseases.

DR. HENRY L. ELSNER, of Syracuse, president of the Medical Society of the State of New York, read a paper before the Medical Society of the County of Chautauqua, December 17, 1901, entitled, Arteriosclerosis in early and middle life. Dr. Elsner was elected an honorary member of the society.

DR. EDWIN RICKETTS, of Cincinnati, president of the American Association of Obstetricians and Gynecologists, will read a paper entitled, Hematoma of the ovary, before the Brooklyn Gynecological Society at its regular meeting, February 7, 1902.

DR. J. HENRY DOWD, Dr. William C. Krauss and Dr. William Warren Potter, of Buffalo, were elected honorary members of the Medical Society of the County of Chautauqua at its meeting, held at Jamestown, December 17, 1901.

DR. LEWIS C. BOSHER, of Richmond, Va., was elected president of the Richmond Academy of Medicine at its annual meeting December 10, 1901.

DR. P. W. VAN PEYMA, of Buffalo, has been reappointed a member of the city school board for the term of five years. In view of Dr. Van Peyma's efficient work in the past, it is difficult to see how Mayor Knight could have done otherwise than recognise it by giving him a second term.

OBITUARY.

DR. WILLIAM MERWIN SMITH, former health officer of the port of New York, died in Redlands, Cal., January 10, 1902, in his 76th year. He was born in Paterson, N.J., his English and Dutch ancestors having come to this country in the early part of the sixteenth century. His father and grandfather were surgeons, and besides being distinguished in medicine he had an active political career. He was twice elected to the legislature, was several times a delegate to National conventions, notably when Lincoln was nominated. He was surgeon-general on Governor Dix's staff, and served during the war as surgeon of the Third Brigade, Casey's division in the Army of the Potomac.

Dr. Smith was appointed health officer of the port of New York by Governor Cornell in 1880, he then being a resident of Allegany County, and held it longer than any other incumbent.

He was an able and efficient health officer for twelve years, and in his administration many reforms were carried out. During his term it was made a salaried office.

Dr. Smith lived in Brooklyn after his retirement from office and became an active student of bacteriology and natural history, having been a collector in the latter branch, as well as a student. In the last few years he had lived in Redlands, Cal. He leaves a wife and two sons—Frank Sullivan Smith, a lawyer of New York, and Clarence Melbury Smith, also a lawyer, living in Redlands.

SOCIETY MEETINGS.

THE Niagara Falls Academy of Medicine held its regular monthly meeting at the office of Dr. C. E. McCarty, Monday evening, January 6, 1902. Dr. Herman Mynter, of Buffalo, read a paper, entitled, Total extirpation of prostate gland. Dr. N. W. Price read a paper on Indigestion.

THE Lake Erie Medical Society held its last regular meeting at Hotel Eggleston, Dayton, N.Y., Friday, January 3, 1902. The officers were: President, F. C. Beals; vice-president, C. H. Richardson; secretary-treasurer, A. L. Borden.

The program was as follows: Typhoid fever in military camps, A. H. Briggs, Buffalo; Military hospitals, J. G. Thompson; Gonorrhea, J. Henry Dowd, Buffalo; paper, James Taggart.

THE Buffalo Academy of Medicine held meetings during the month of January, 1902, as follows:

Section on Surgery.—Tuesday evening, January 7. Program: Nephrolithiasis, with reports of some interesting cases, Ramon Guiteras, New York City.

Section on Medicine.—Tuesday evening, January 14. Program: The diagnosis of gastric cancer, A. L. Benedict; The capillary area, Eli H. Long.

Ophthalmology, Otology, Laryngology and Rhinology.—Monday evening, January 20. Program: The eye muscles of animals, with demonstration; tropometers and their uses, Lucien Howe. Report of a case of intraocular hemorrhage occurring during extraction of cataract, Arthur G. Bennett.

Section on Pathology.—Tuesday evening, January 21. Program: Relation of evolution to infection with special reference to venereal diseases, G. Frank Lydston, Chicago; discussion by Roswell Park, William H. Heath and Walter D. Greene. New tissue formation, its early detection and complete obliteration, J. Henry Dowd.

Section on Obstetrics.—Tuesday evening, January 28. Program: Subject to be announced, William R. Pryor, New York City.

THE Medical Union held its 19th annual banquet at the Genesee, Wednesday evening, January 22, 1902, at 7.30 o'clock. The banquet committee was Drs. A. H. Briggs, R. L. Banta, Frederick Preiss. Dr. A. H. Briggs acted as toastmaster. The toasts were: "The Medical Union," J. H. Potter; "Prodigal Son," Conrad Diehl; "Future Health," Health Commissioner Greene; "Tuberculosis," William G. Bissell; "Surgery," Edward J. Meyer; "The Old Practitioner," William C. Phelps; "Fraternity," J. C. Thompson. Among those at the banquet table were Drs. Banta, Hubbell, Renner, A. E. Diehl, Congdon, Dorr,

D. C. Greene, S. S. Green, Kenerson, Rasbach, Hawley, Buswell, McMichael, Fell, Ingraham and Frederick Preiss.

HOSPITAL NOTES.

THE Buffalo Hospital of the Sisters' of Charity medical and surgical staff has elected the following-named physicians as officers for the year 1902: President, H. C. Buswell; vice-president, Walter D. Greene; secretary, Max Keiser; executive committee, E. J. Meyer, James J. Mooney and Charles S. Jewett.

THE New Emergency Hospital was recently opened for the reception of patients. The following-named physicians constitute the staff: Medicine, John H. Pryor, L. Bradley Dorr; Surgery, C. M. Daniels, F. J. Carr, Vertner Kenerson; ophthalmology, H. Y. Grant, B. H. Grove; laryngology, rhinology and otology, W. Scott Renner, E. A. Forsyth; dermatology, Ernest Wende; genito-urinary, James A. Gardner, N. W. Wilson; nervous diseases, William C. Krauss; consulting chemist, John A. Miller, M.S., Ph.D., F.C.S. (University of Berlin); internes, C. W. Southworth, J. H. Dewees, G. McKay Hall.

THE German Hospital staff held its annual meeting Thursday, January 9, 1902, at which the following officers of the staff were reelected: President, C. H. W. Auel; vice-president, M. Hartwig; secretary, C. Weil.

BOOK REVIEWS.

A TREATISE ON THE ACUTE, INFECTIOUS EXANTHEMATA. Including Variola, Rubella, Scarlatina, Rubella, Varicella and Vaccinia, with especial reference to Diagnosis and Treatment. By WILLIAM THOMAS CORLETT, M. D., L. R. C. P., London, Professor of Dermatology and Syphilology in Western Reserve University; Physician for Diseases of the Skin to Lakeside Hospital; Consulting Dermatologist to Charity Hospital, St. Alexis Hospital, and the City Hospital, Cleveland. Illustrated in 12 Colored Plates, 28 Half-tone Plates from Life and 2 Engravings. Pages viii-392. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street. [Price, Extra Cloth, \$4.00 net, Delivered.

This book, the author tells us, is especially intended to benefit young practitioners who are often confronted by their first case of exanthemata after having fairly begun the practice of medicine, and are subject to chagrin and mortification when the invincible

old woman readily tells them from what special form of the ailment the patient is suffering. One would almost conjecture that the author himself had passed through this particular experience, judging from the opening sentence of his preface and that, after many years of patient and careful study, he had been able to prepare a work whose value to the medical profession—especially to its younger members—it is simply impossible to compute.

The initiatory portion of the volume deals with the early history of exanthemata, covering twenty-seven pages. In tracing the history of smallpox the author reviews the efforts that have been made to assign to it a prehistoric antiquity, on the part of those who assume to believe that pestilence and plague are used synonymously with that disease and other eruptive fevers, and by whom, when smallpox is first spoken of, it was not characterised as anything new—all of which leads the author to suppose that the disease is really older than the records show. A résumé is given both of the history and of the geographical distribution of this disease in each country, as it existed during prehistoric times. The description of smallpox credited to Hippocrates is meager and may fairly be considered as questionable.

The history of smallpox in the Americas dates from 1517, when both it and measles were carried to the Island of St. Domingo. Smallpox prevailed in China and Hindoostan from remote antiquity, but did not extend through the Western Hemisphere until later. In this connection a plate constituting a religious dramatic representation of the power of the Hindoo Goddess of smallpox possesses genuine interest. The second chapter opens with a consideration of variola, and presents an intelligent conception, modern in thought, of the different forms of smallpox, with logical reasons for the predominance of the irregular or middle forms, as found in the present outbreak in the United States; showing, also, that the disease, which frequently varies in manifestations, is but a contingent of the same condition—a fact which may be considered unanswerable. Of course, the enforcement of vaccination on all well-regulated cities accounts for the fact that the number of malignant cases has become largely diminished.

The literature of the last few years relating to the manifestations of smallpox in this country has been abundant, but much of it misleading and pernicious. The volume under consideration brings the discussion of the subject up to the present day, without giving much attention to the ignoble army of writers who are laboring to establish a new disease theory by way of cloaking their pitiful ignorance and covering their unfortunate mistakes; some calling it chickenpox, others, a new disease.

Dr. Corlett has given a concise and systematic interpretation of this subject, as he is well qualified to do both by experience and native ability. He lays special stress upon diagnosis, which, in typical cases can readily be made, although attended by more or less uncertainty at the beginning. He calls attention

to the fact that no single feature of a dermapathy is absolutely pathognomonic of smallpox, and declares that physicians not uncommonly hold their patients for an unnecessarily long time waiting for the assertion of all the conventional symptoms. He portrays the physiognomy of this disease in the fewest words possible, and in differential diagnosis is most exact, although he makes one statement in relation to chickenpox which is calculated to create surprise—namely, that he himself has never encountered a case of chickenpox arising after puberty. The reviewer distinctly recalls four cases of chickenpox that appeared after the age of twenty-five. Twenty illustrations relating to smallpox accompany the text, of which five are colored plates. The latter were made by a well-recognised medical artist, and show much painstaking and care, and are, for the most part, quite true to nature, although they leave something to be desired in the matter of coloring and flesh tints. The selection of cases for photographic reproductions has been made with a view of illustrating the present epidemical character of the disease. The reproductions themselves, all the usual drawbacks and hindrances being considered, are remarkably good.

The subject of vaccine occupies twenty-two pages, and is exhaustively treated. The author has paid proper attention to anomalous vaccine, and the complications and sequelæ. We might reasonably have expected a few more plates, illustrating various forms of eruption following vaccination; a lack probably accounted for by the present rarity of this result, although plates XXI. and XXII. are exceptionally good.

So much has been said about varicella that it is refreshing to see a correct photographic reproduction of this common disease. In order to get a just idea of what a typical case looks like, one needs to compare this picture of varicella plate XXIX. with variola plate XIX; the two diseases having so much in common. Plate XXVII. and XXVIII. are open to criticism on account of their unnatural redness, but all must concede that the pictures give a very good idea of the general character of the disease. In the description proper, stress is laid on diagnosis and treatment.

The work is concluded with a description of scarlatina, rubeola and rubella which contains much that will be found in other standard treatises on general medicine; yet for admirable arrangement of the material, the omission of useless details, the clear mode of expression and a certain original and forcible method of treating his subjects, especially in the matter of diagnosis, the author deserves high praise. While the work represents the author's individual views and opinions he has not neglected to draw upon the observations and researches of men in general medicine, and has successfully combined them with his own. There are photographs and colored plates scattered through the text which will be of great assistance to practitioners as they are well executed, illustrate features in common cases and accent the points of differential diagnosis.

After a careful examination of Dr. Corlett's book, we wish to congratulate him on giving to the public something that was much needed. Especial prominence is most properly given in the work to the consideration of the disease (smallpox) most prevalent in the United States. The exposition of the principles and practices in the diagnosis of acute exanthemata is both valuable and creditable.

The book is printed in clear, readable type, upon paper of superior quality and presents a handsome and inviting appearance.—G. W. W.

AN AMERICAN TEXT-BOOK OF PATHOLOGY. Edited by LUDVIG HEKTOEN, M. D., Professor of Pathology, Rush Medical College, Chicago; and DAVID RIESMAN, M. D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial 8vo of 1245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$7.50; sheep or half-morocco, \$8.50 net.]

The above work is the first attempt to produce a truly American text-book of pathology. It has the disadvantage that so many of the recent American books possess, of being composed of chapters furnished by different contributors (in this case nineteen.) For this reason the chapters show great variation in the treatment of the different subjects and the book, as a whole, suffers from that lack of coherence which marks all work of this class. Otherwise the work makes an excellent appearance and will undoubtedly reflect credit upon American pathology.

The illustrations are largely new, a great many of them excellent; at the same time it is to be regretted that in a work of this kind, any illustrations should be borrowed from foreign text-books, and it is to be hoped that in the future editions of the work, such may be replaced by original illustrations. Chapter I. on Health and Disease contains a great deal of suggestive material. The chapter on general morbid processes is carefully prepared and clearly written. The chapter on tumors, considering the present status of the question, is clear. The classification is that generally accepted by pathologists. The placing of glioma and neuroma after the fibro-epithelial tumors instead of between them and the strictly connective tissue ones, somewhat breaks the symmetry and the broad classification into non-malignant and malignant tumors is more in the interest of clinical pathology than of strict classification. The chapter on micro-parasites is sufficiently exhaustive for a text-book on pathology. The space allotted to the budding and filamentous fungi, especially an excellent chapter on pathogenic protozoa bear evidence of the growing interest in these organisms. The chapter on animal parasites is concise and clear. The intoxications, especially the mineral poisons, receive somewhat fuller treatment than is customary. The chapter on fever is concise and that on teratology is accompanied by a number of excellent illustrations.

About two-thirds of the book is devoted to special pathology and contains a series of excellent chapters. It is interesting to

note the introduction of a special chapter on the blood by a recognised hematologist. The chapter on diseases of the central nervous system, contains several original colored illustrations of great excellence. The chapter upon the bones is perhaps a little too brief for so important a subject. The illustrations are mostly original and generally good. In the chapter on the voluntary muscles, the illustrations fall far below the general average of excellence. The text of the chapter on the digestive system is excellent, but the illustrations with two exceptions are inferior.

There are several photomicrographs, notably those on pages 762, 790, 802, 806, 810, 813, 814, 816 and 823, which mar the appearance of the chapter and should be replaced either by suitable drawings or properly reproduced photomicrographs from good negatives. The chapter on the respiratory tract is not as exhaustive as could be wished. The illustrations are generally good; several of the colored ones excellent. The chapter on the ductless glands, considering the limited knowledge of this subject is treated in a very able manner. The chapter on the urinary organs follows accepted lines. In the classification of inflammations of the kidney an attempt is made to combine the clinical and pathological classifications. The illustrations of histological preparations are generally good. Those of the macroscopic specimens of the kidney are generally too highly colored. The chapter on the female genital tract is excellent, and accompanied by a number of good drawings. It is rather a curious innovation to treat diseases of the breast under a separate heading. The chapter is ably written and well illustrated, containing a number of photomicrographs satisfactorily reproduced; at the same time, the propriety of according separate treatment to this organ may be questioned. The chapters on diseases of the skin and the eye and ear are sufficiently exhaustive and well illustrated.

On the whole the book makes a most satisfactory impression and can be warmly welcomed as the first attempt to produce an exhaustive American text-book of pathology. The introduction of the colored illustrations in the text adds greatly to the appearance of the work and is a pleasing characteristic. The work is worthy of the support of all the American teachers and satisfactorially represents the present-day status of American pathology.—H. R. G.

A TEXT-BOOK OF SURGERY. By DR. HERMANN TILLMANS, Professor in the University of Leipsic. Translated from the seventh German edition by Benjamin T. Tilton, M. D., and John Rogers, M. D., Instructors in Surgery, Cornell University. Edited by Lewis A. Stimson, M. D., Professor of Surgery, Cornell University. Volume I. The Principles of Surgery and Surgical Pathology. With 516 illustrations. Pp. viii.—841. New York: D. Appleton & Co. 1901.

This volume shows a general bringing to date of all the subjects treated in the first American edition. To chapter I. has been added a special paragraph on the sterilisation of the hands. Emphasis is laid upon Krönig's method. The author recom-

mends gloves only as a means of protection in septic cases. In chapter II. a separate paragraph is given to Schleich's infiltration method for local anesthesia. No mention is made of intraspinal cocainisation. Under chapter VI. the sterilisation of catgut is fully considered. All of the standard methods are given. To chapter X. has been added a paragraph on the histological changes in skin grafting. In section 2, chapter I., paper wool is recommended as a dressing for wounds and under antiseptics, orthoform, tumenol and teucrin. A special paragraph on Créde's silver preparations and a paragraph on the treatment of eczema of the surgeon's hands. Section 3, chapter I., shows a number of additions. Under fungi are several new illustrations. The paragraph on the blastomycetes, which is present in the first American edition, 1894, at a time when these organisms were seldom mentioned in other works on surgery, is extended to include the recent observations of Busse and others, but does not include blastomycetic dermatitis, although the possible relation of these organisms to skin diseases is mentioned.

The paragraphs on bacteria are brought up to date, and that on toxins entirely rewritten. The paragraph on the mycetozoa and the mention of the plasmodiophora brassicæ, which is being so actively discussed in connection with cancer cannot fail to attract attention, inasmuch as this paragraph and the one following it on the protozoa appeared in the first American edition. The paragraphs on scar formation are based largely on the author's personal observation. The chapters on surgical diseases are excellent and that on diseases of bone is one of the best in any work on surgery. The chapter on tumors, especially the paragraphs dealing with the etiology of tumors, which takes cognisance of the work of Juergens on sarcoma, is excellent. The paragraph on the importance of microorganisms in the etiology of cancer reveals the author in an advanced position in this field.

Tillmans seems inclined toward the belief that the protozoa are the probable cause of cancer, although he considers that the cause has not been definitely established, inasmuch as the parasites in question have not yet been isolated nor carcinoma produced by inoculations of pure cultures. He observes, however, on the other hand, that the plasmodium of malaria has never been obtained in pure culture nor successfully inoculated upon man and that no one doubts that it is the parasite which causes malaria. Likewise, the coccidia are very sensitive bodies, very hard to inoculate upon animals and it seems that each specie can act as a parasite only in certain cells of a certain species of animals. Although the parasitic theory of carcinoma has not yet been proved, the author believes that since the recent investigations of Juergens the theory is very probable. He considers that in future investigation the warm stage microscope and fresh examination should be more largely employed.

On the whole the book shows that keen insight and close touch with the advance of pathology and surgery, which has

given the previous editions of the work its just reputation. There is no work upon surgery in any language in which that portion dealing with surgical pathology is more in accord with the best teachings of the leading pathologists than the first volume of Tillmans's surgery. The work should emphasize the absolute necessity for the surgeon's being thoroughly acquainted with pathology, and it can be recommended as a most excellent guide for the student and a standard work of reference for the surgeon.—H. R. G.

THE FOUR EPOCHS OF WOMAN'S LIFE. A Study in Hygiene. By ANNA M. GALBRAITH, M. D., Author of "Hygiene and Physical Culture for Women;" Fellow of the New York Academy of Medicine, etc. With an Introductory Note by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylvania. Duodecimo volume of 200 pages. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.25 net.]

The present is preëminently an age of preventive medicine. In large ways by national, state, and municipal health regulations, in small ways by instruction, both public and private, health boards, medical societies and physicians and intelligent laymen are striving to limit the spread of disease, to preserve health rather than to cure disease. With this spirit as the motive power, Dr. Galbraith has written a book on sexual hygiene for women. The work is brief—scarce 200 pages are filled, but it presents clearly, concisely and modestly those facts of anatomy and physiology and that practical hygiene, knowledge of which will save a woman anxiety, suffering and actual disease. The book has much worthy of commendation. The chapter upon the menopause is one which might have been improved. The author here fails to make clear to the reader the necessity for early medical attention in cases where symptoms point to malignant disease of the uterus.

There is much in the volume which the husband as well as the wife should know.—M.J.F.

THE PRINCIPLES OF HYGIENE. A Practical Manual for Students, Physicians and Health Officers. By D. H. BERGEY, A. M., M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania. Octavo volume of 495 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.00 net.]

Preventive medicine assumes an increasingly important place as our knowledge of the causes of disease grows. Now that it has been learned that filth and other distinctly avoidable factors are many times responsible agents rather than Providence, nation, state, and municipality are bestowing more and more attention on all the ways and means of disease prevention. So a call comes for better trained sanitarians and to meet this it comes to pass that medical schools as a whole are taking pains to educate more thoroughly in hygiene. This book is an outgrowth of the practical teaching of hygiene in one of our great universities. As such it may be expected to meet the needs of

the student especially. This it does, but at the same time it will be found of value to the practitioner of medicine and the practical sanitarian; and students of architecture who need to consider problems of heating, lighting, ventilation, water supply and sewage disposal, may consult it with profit, giving as it does the sanitarians point of view.

The following chapter headings give some idea of the scope of the work: ventilation, heating, water supply, removal and disposal of sewage, garbage disposal, industrial hygiene, naval hygiene, school hygiene, and the like. Some of these various subdivisions are treated suggestively rather than exhaustively. One wishes at times that the author had gone a little farther. The matter presented, however, in every case represents the latest knowledge upon the topic under discussion.

The metric system of weights and measures is employed throughout the work. The mechanical part of the book is well executed.—M.J.F.

NERVOUS AND MENTAL DISEASES. By ARCHIBALD CHURCH, M. D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and FREDERICK PETERSON, M.D., Chief of Clinic, Department of Nervous and Mental Diseases, and Clinical Lecturer on Psychiatry, College of Physicians and Surgeons, New York. Third edition, revised and enlarged. Handsome 8vo volume of 870 pages, with 322 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$5.00 net.]

The appearance of the third edition of Church and Peterson's text-book on nervous and mental diseases within two years after the first edition was published, shows that it has been kindly accepted by the profession at large and recommended as a safe and admirable text-book. The third edition has been somewhat revised and rearranged, new tabular matter inserted, new illustrations added and otherwise improved, so that it stands today as one of the very best expositions of nervous and mental diseases in existence. The illustrations are exceptionally good, the majority of which are original and show what is expected of them. Some new ones have been incorporated, as those on adeno-lipomatosis, trophoedema and others. The part devoted to mental diseases has received careful revision by Dr. Peterson and is an admirably lucid exposition of the subject.

The book is dressed in the very best, the paper is excellent and the half-tones consequently come out to best advantage. The well known firm of Saunders & Co. are the publishers.—W.C.K.

A TEXT-BOOK OF DISEASES OF WOMEN. By CHARLES B. PENROSE, M.D., Ph.D., formerly professor of Gynecology in the University of Pennsylvania. Fourth edition, revised. Octavo volume of 439 pages, handsomely illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.75 net.]

Four editions of this book in as many years bespeak the favor it has obtained among both students and physicians. Upon its

first appearance it took high place in the literature of gynecology and it has maintained it with increasing force as one edition follows another.

In many parts the book is marked by unusual strength, for example, in injuries to the perineum, displacements of the uterus, diseases of the uterus and appendages, tumors of the uterus and ovaries, and in technique. These are not the precise titles of the sections, but they express in groups the points we wish to emphasize. The author has made such changes in this edition as serve to bring it forward to the present date in its theory and practice. Its continued favor for undergraduates and physicians is well assured.

FIRST AID TO THE INJURED AND SICK. By F. J. WARWICK, B. A., M. B., Cantab., Associate of King's College, London; Surgeon-Captain, Volunteer Medical Staff Corps, London Companies, etc.; and A. C. TUNSTALL, M. D., F. R. C. S. Ed., Surgeon-Captain Commanding the East London Volunteer Brigade Bearer Company; Surgeon to the French Hospital and to the Children's Home Hospital, etc. 16mo volume of 232 pages and nearly 200 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

This book was written for the purpose of putting in the hands of the laity practical information as to rendering immediate temporary assistance to the sick or injured before the arrival of a doctor.

Part I. is a brief outline of the structure and functions of the human body. Part II. begins with the application of bandages. Then follow in order chapters on the immediate treatment of hemorrhage, wounds, dislocations and fractures,* asphyxia, poisoning, insensibility, burns and scalds; transportation of the sick and injured, etc.

The instructions given for dealing with the various emergencies discussed are simple, practical and clearly stated. Those whose work renders them liable to have to deal with accidents, as railway employees, policemen, etc., ought to find the book one of great value.—M.J.F.

A TEXT-BOOK UPON PATHOGENIC BACTERIA. For Students and Physicians. By JOSEPH MCFARLAND, M. D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Medico-Chirurgical Hospital, Philadelphia; Fellow of the College of Physicians, Philadelphia. With 142 illustrations. Third edition, revised and enlarged. Philadelphia and London: W. B. Saunders & Co. [Price, \$3.25]

The third edition of Dr. McFarland's book brings his work on the pathogenic bacteria up to date. The chapter on Immunity and susceptibility, which was good in the first edition, has been amplified and extended so as to include even a brief description of Ehrlick's and Wasserman's lateral-chain theory. This chapter is one of the best in the book and can scarcely fail leaving a clear impression of the significance of the theme on the mind of the reader. The chapters on technics and on the individual

species of bacteria are fuller than in the previous editions and some new illustrations have been added. Altogether this is an excellent and valuable manual and it is not surprising that it has been successful. It will be even more so, we think, in its revised form.

QUIZ COMPENDS. No. 16 A Compend of Diseases of the Skin. By JAY F. SCHAMBERG, A. B., M. D., Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine. Second edition, revised and enlarged. With 105 illustrations. Philadelphia: P. Blakiston's Son & Co. 1900. [Price, 80 cents.]

The second edition of this work is designed both for students and practitioners and has just been published, following the first with unusual rapidity. The number of practitioners who today are seeking instruction in compact form concerning special branches is continually increasing and there is therefore a ready market for this volume.

The author presents in a concise and accurate manner the salient principles of dermatology. There is no pretence at originality, and there are occasional inaccuracies of statement, but the work is, nevertheless, a useful one for the busy doctor.

The profuse illustrations form one of its most admirable features and will serve not only to make the subject easier to comprehend but impress the more important point of the text upon the reader. This book is one of the best in its class, and is sure to be in demand.—G.W.W.

A LABORATORY HANDBOOK OF PHYSIOLOGIC CHEMISTRY AND URINE-EXAMINATION. By CHARLES G. L. WOLF, M. D., Instructor in Physiologic Chemistry, Cornell University Medical College, New York. Duodecimo volume of 190 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.25 net.]

A book for students containing in the first part laboratory exercises in physiological chemistry, which afford a broad basis for the practical clinical tests in the latter half of the volume.

The tests for examination of the gastric contents and the urine have been selected with care, none being given which are not suitable for clinical work. A brief space in the text is devoted to urinary and gastric diagnosis, and the volume is concluded with carefully compiled tables for urinary diagnosis. Altogether the book, while hardly meeting the needs of the practitioner, will prove of great service to the student of medicine.—M.J.F.

TWENTIETH ANNUAL REPORT of the State Board of Health of New York. For the year ending December 31, 1899. Transmitted to the legislature February 15, 1900. Albany: James B. Lyon, State Printer. 1901.

This report makes reference to an epidemic of smallpox that began in May, 1898 and crept into the state with a traveling theatrical company at Westfield. This is the outbreak detected by Dr. Ernest Wende, health commissioner of Buffalo, who was

called as an expert. Meanwhile the disease had gained such headway that it took more than a year to stamp it out.

The rendering works at Cheektowaga in Erie County are referred to as being in "good shape," which means that they are in a satisfactory sanitary condition, we presume. The report is accompanied with the usual number of papers referring to the conditions in the several important localities of the state; sewerage and sewage disposal claim their full share of attention. After the issuance of one more report, the official acts of the board of health will cease, its duties being merged in the commissioner of health.

A TEXT-BOOK OF BACTERIOLOGY. By GEORGE M. STERNBERG, M. D., LL. D., Surgeon-General U. S. Army; Ex-President of the American Medical Association and of the American Public Health Association, etc. Octavo, pp. 718. Illustrated by heliotype and chromo-lithographic plates and 200 engravings. Second revised edition. New York: William Wood & Co. 1901. [Price, cloth, \$4.50 net; brown sheep, \$5.25 net.]

The above text-book, previously a manual of bacteriology, is the representative American work on bacteriology. The pleasing feature of colored illustrations and original photomicrographs reproduced by heliotype, has been retained. The chapters on toxins and toxalbumins, susceptibility, immunity and protective inoculation, have all been brought up to date and are excellent. A chapter on bacterial diseases of plants has been added and is of interest. The book forms an excellent laboratory text and reference book and is without doubt the best work of its kind in the English language.—H.R.G.

INFANT-FEEDING IN ITS RELATION TO HEALTH AND DISEASE. By LOUIS FISCHER, M. D., Visiting Physician to the Willard Parker and Reception Hospitals of New York City, etc. Duodecimo, pp. 351. 52 illustrations, with 23 charts and tables, mostly original. Second edition. Philadelphia: F. A. Davis Co. 1901.

Dr. Fischer's valuable little book on infant feeding met with such a hearty reception that a new edition was demanded in six months. This second edition appears in an entirely new form and dress, with numerous changes and additions. The alterations are all in the way of improvement.—M.J.F.

BOOKS RECEIVED.

DaCosta. Clinical Hematology. A Practical Guide to the Examination of the Blood with Reference to Diagnosis. By John C. DaCosta, Jr, M. D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College; Hematologist to the German Hospital, etc. Containing 8 full-page colored plates, 3 charts and 48 other illustrations. Octavo, 450 pages. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. [Price, \$5.00 net.]

A Practical Treatise on Materia Medica and Therapeutics. With Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical

College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Fifth edition, thoroughly revised. Pages viii.—1143. Size, $9\frac{1}{4} \times 6\frac{1}{4}$ inches. Philadelphia: F. A. Davis Co., Publishers, 1914-16 Cherry Street. [Extra cloth, \$5.00 net; sheep, \$5.75 net, delivered.]

A Brief Manual of Prescription-Writing in Latin or English. For the use of Physicians, Pharmacists and Medical and Pharmacal Students. By M. L. Neff, A. M., M. D., Cedar Rapids, Ia. Pages v.—152. Size, $8 \times 5\frac{3}{4}$ inches. Philadelphia: F. A. Davis Co., Publishers, 1914-16 Cherry Street. [Extra cloth, 75 cents net, delivered.]

Studies in the Psychology of Sex. Sexual Inversion. By Havelock Ellis, L.S.A., (England); Fellow of the Medico-Legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; General Editor of the Contemporary Science series since 1899. The "Studies in the Psychology of Sex" will probably be completed in five volumes. "Sexual Inversion" is second volume in the series. Pages xi.—272. Size, $8\frac{5}{8} \times 5\frac{3}{4}$ inches. Sold only to physicians, lawyers, advanced teachers and scientists. Philadelphia: F. A. Davis Co., Publishers, 1914-16 Cherry Street. [Extra cloth, \$2.00 net delivered.]

The Medical News Pocket Formulary. New (4th) edition. Containing 1,700 prescriptions, representing the latest and most approved methods of administering remedial agents. By E. Quin Thornton, M. D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. Carefully revised to date of issue. In one wallet-shaped volume, strongly bound in leather, with pocket and pencil. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, \$1.50 net.]

Simon's Clinical Diagnosis. A Manual of Clinical Diagnosis by means of Microscopical and Chemical Methods. For Students, Hospital Physicians and Practitioners. By Charles E. Simon, M. D., author of Simon's Physiological Chemistry, etc. New (4th) edition, thoroughly revised and enlarged. In one handsome octavo volume of 608 pages, illustrated with 139 engravings and 19 plates in colors. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$3.75 net.]

Transactions of the American Gynecological Society. Vol. XXVI. For the year 1901. Published by the Society and edited by J. Riddle Goffe, M. D., Secretary. Philadelphia: William J. Dornan, Printer. 1901.

A Manual of Venereal and Sexual Diseases. By Wm. A. Hackett, Ph. G., M. C. P. S. (Ont.), Professor of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery; and N. E. Aronstane, M. D., Ph. G., Assistant in Chemistry and Clinical Dermatology in the same institution. Chicago: G. P. Engelhard & Co. 1901. [Price, \$1.00.]

The Pocket Gray or Anatomist's Vade-Mecum. By the late Edward Cotterell, F. R. C. S. Fifth edition, revised and edited by C. H. Fögge, M. D., M. S. (Lond), F. K. C. S., Surgeon Demonstrator of Anatomy at Guy's Hospital. Twentieth thousand. New York: William Wood & Co. 1901. [Price, \$.]

The Practical Medical Series of Year Books. Ten volumes. Issued monthly, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. II. General Surgery. Edited by John B. Murphy, M. D., Professor of Surgery, Northwestern University Medical School. November, 1901. Pp. 515. Chicago: The Year Book Publishers, 40 Dearborn Street. [Cloth, \$2.00.]

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-giving, useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital

and to the Rush Hospital for Consumption, etc. In eleven 8vo volumes. American, English, German and French authors. Volume VI. Dietotherapy and Food in Health. By Nathan S. Davis, Jr., A. M., M. D., Professor of the Principles and Practice of Medicine in Northwestern University Medical School; Physician to Mercy Hospital and Wesley Hospital, Chicago; Member American Medical Association, etc. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. [Price for the set complete, \$27.50 net.]

Outlines of Anatomy. A Guide to the Methodical Study of the Human Body in the Dissecting Room. By Edmund W. Holms, A. B., M. D., Demonstrator of Anatomy, University of Pennsylvania (1892-1901); Surgeon to the Methodist-Episcopal Hospital, etc. Second edition. Lancaster, Pa.: The New Era Printing Co. 1902.

Manual of Physical Diagnosis. For the use of Students and Physicians. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the University Hospital; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fourth edition, revised and enlarged. Duodecimo. With colored and other illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. [Price, cloth, \$1.50 net.]

American Edition of Nothnagel's Encyclopedia. Variola, Vaccination, Variella, Cholera, Erysipelas, Whooping Cough, Hay Fever. Variola (including Vaccination). By Dr. H. Immermann, of Basle. Varicella. By Dr. Th. von Jürgensen, of Tübingen. Cholera Asiatic and Cholera Nostras. By Dr. C. Liebermeister, of Tübingen. Erysipelas and Erysipeloid. By Dr. H. Lenhartz, of Hamburg. Whooping Cough and Hay Fever. By Dr. G. Sticker, of Giessen. Edited, with additions, by Sir J. W. Moore, B. A., M. D., F. R. C. P. I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Handsome 8vo volume of 682 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. [Price, cloth, \$5.00 net; half-morocco, \$5.00 net.]

LITERARY NOTES.

THE MALTINE COMPANY'S PRIZES.—Believing that a proper exercise of preventive medicine is of incalculable importance to the human race and desiring to stimulate further research in this line, or at least to disseminate some of the newer ideas so prominently discussed by the medical profession in recent years, we offer two prizes: a first prize of one thousand dollars and a second prize of five hundred dollars, in cash, for the best essays on that subject.

Conditions of the Competition.—FIRST.—Essays offered in competition must treat the subject of preventive medicine in its various relations to the welfare of the human race, either treating the topic in its broadest scope as affected by disease, custom, environment, heredity, etc., or from the view-point of the specialist who contends that the most potent factors inimical to mankind result from special conditions which he is enlisted to combat.

SECOND.—In order that there may be no violation of medical ethics and no suspicion of mere commercialism on our part, maltine or any of its combinations must not be mentioned or even indirectly alluded to in the essays.

THIRD.—Competition is open to graduates of all recognised medical colleges.

FOURTH—The essays will be judged by the following gentlemen: Daniel Lewis, A.M., M.D., New York, President New York State Board of Health; Professor of Special Surgery (Cancerous Diseases), Post-graduate Medical School; Surgeon to the Skin and Cancer Hospital; Editor *Medical Review of Reviews*. Charles A. L. Reed, A. M., M. D., Cincinnati, Ex-President American Medical Association; Ex-President American Association of Obstetricians and Gynecologists; Fellow British Gynecological Society. John Edwin Rhodes, A.M., M.D., Chicago, Associate Professor Diseases of the Chest, Throat and Nose, Rush Medical College; Former Professor of Physical Diagnosis and Clinical Medicine, Northwestern University Woman's Medical College, and the prizes awarded in accordance with their decision.

FIFTH—The essays are to consist of at least ten thousand words.

SIXTH—Each competitor is to send us three typewritten copies of his essay by mail in a sealed envelope. These copies are not to be signed by the author, or contain anything which might point to his identity, but are to be signed with a *nom-de-plume*.

SEVENTH—Another sealed envelope shall be sent to us containing this *nom-de-plume* together with the author's name and address. The envelope must be endorsed "For Identification," and will remain sealed until the judges have decided upon the two prize-winning essays, and will then be opened in order that the names of the successful competitors may be ascertained.

EIGHTH—The prize essays and any others which are deemed suitable will be published in a medical journal or journals subject to the approval of the authors.

NINTH—We reserve the right to republish any of these essays in pamphlet form, restricting the circulation to the medical profession.

TENTH—Essays entered in competition must be in our hands by September 1, 1902.

THE MALTINE COMPANY,
8th Avenue and 18th Street, Brooklyn, New York.

THE *American Gynecological and Obstetrical Journal* announces its discontinuance in and with its issue for December, 1901. It has struggled against heavy odds from the outset of its career, though it must be confessed it made a strong fight and went down "just outside the breastworks."

It says: The *Journal* shows on its credit sheet a balance due from subscribers and advertisers over and above all indebtedness and expenses. It shows also that during the past ten years over 5,000 subscribers have received and contracted to pay for it who have never paid. It shows, further, that over \$30,000 has been lost through unpaid subscriptions by contracts freely entered into by medical men. This exhibits a demoralisation in the medical profession that is shameful, to say the least.

But it also shows that the journalistic field is overcrowded and that men cannot be made to pay for that which they have, perhaps, been overurged to subscribe for.

BATTLE & COMPANY'S chart No. 6, illustrating fractures of the long bones, depicts fractures of the patella, showing the separation of the fragments by the rectus and vasti muscles. It is an excellent anatomico-surgical plate.

MESSRS. P. BLAKISTON'S SON & CO., of Philadelphia, the American agents of the New Sydenham Society, at the request of Jonathan Hutchinson, Esq., F. R. S., secretary of the society, announce the publication of An Atlas of Clinical Medicine, Surgery and Pathology, selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upwards of 170 volumes of the greatest scientific value. An effort is now being made to increase the membership, in order to extend its work.

THE *Brooklyn Medical Journal*, one of our most respected exchanges, began the 16th year of its publication in a new dress and with a change of form, from standard octavo to double column quarto. It makes a fine appearance in its new outfit and we extend our congratulations. At the same time we always like the standard octavo size the best because it makes the most convenient shape when bound. However, as comparatively few bind a journal, perhaps that is of small consequence.

MISCELLANY.

DEPARTMENT OF HEALTH.—That the work of the physician may be simplified and that school children, who have been quarantined on account of contagious disease, may more readily obtain certificates permitting them to return to school, on and after January 15, 1902, upon receipt of request from the attending physician to remove scarlet fever placards, together with statement that the premises have been disinfected and fumigated; and upon receipt of regulation postal card, in diphtheria cases, that disinfection and fumigation has taken place; and in all other contagious and infectious diseases, we will fill out and deliver to the family, school certificate, in cases where there are school children in the family.

WALTER D. GREENE, M. D., Health Commissioner.

BUFFALO, N. Y., January 10, 1902.

ITEMS.

THE attention of the profession of medicine is invited to the advertisement of the Roberts Lymph Sanitarium, on page xxiv. Dr. Edward T. Smith who conducts it is one of our very reputable physicians, and his institution is vouched for by other prominent medical men.

THE Columbia calendar for 1902, is a useful memorandum and desk reminder, not only of the days of the week and month, but of Columbia and Hartford bicycles that are now so popular. The Columbia bicycle now enters upon its 25th year, and the calendar upon its 17th year—both able to stand on their own merits, and are made by the American Bicycle Company, Hartford, Conn.

THE Scott and Bowne desk and memorandum calendar for 1902 has presented itself in its usual good form. It has become a regular and well-nigh indispensable visitor, for no desk is complete without some such ready reminder of duties that otherwise might be forgotten. This one, too, is a reminder of the many uses, new and old, of Scott's emulsion that must prove of value to a vast number of physicians. It will be sent on application to any who may have been overlooked in its distribution.

THE Antikamnia calendar for 1902 presents a reproduction in colors of Helen Hyde's "Her first picture book." It is an attractive copy of the original painting which Mr. Ruf, the president of the company, purchased last year in Paris. On the reverse is the calendar proper together with a few remarks relating to the products of the Antikamnia Chemical Company, St. Louis.

MISS MARY I. CAMPBELL announces that the partnership between herself and Mrs. Amy G. Goodwyn has been dissolved, and that the private sanitarium at No. 50 Allen Street, Buffalo, is now entirely under the direction of Miss Campbell.

Miss Bertha Baldwin, of Brantford, Ont., a graduate of the Long Island College Training School, has been engaged as resident nurse. Miss Baldwin graduated with high honor in 1900 and is eminently qualified for her present position.

Although the sanitarium is principally for the care of out of town patients, residents of Buffalo will also be received when there is room. A room has been especially fitted up for treatment, such as vapor baths, massage, and other similar purposes.

THE Varoma Medical Company has succeeded to the business of the Vaporium Medical Co., and the name "Varoma" has been substituted for "Vaporium."

Schieffelin & Co., New York, are acting as sole agents for the Varoma Medical Company, and all orders and inquiries may be addressed to them.

Messrs. Schieffelin make the following statement in regard to the product:

Varoma is a combination of various volatile coal tar derivatives, possessing high antiseptic powers, and yet perfectly innocuous. The vapor of varoma is unirritating, free from unpleasant odor, and may be safely breathed by the youngest child. In cases of laryngeal diphtheria (croup) and whooping cough, if the air of the sickroom is constantly charged with the vapor, the disease will be found to run a much milder course. At the same time the spread of the disease to other children or the members of the household will be prevented.

Aside from its use in the above class of patients, varoma may be employed with benefit in other affections of the respiratory organs. In tuberculosis of the lungs, it promises to be of great service by exerting a local antiseptic influence upon the affected lung tissues and also destroying the bacilli in the sputum and in the expired air. Excellent results have also been obtained with varoma in cases of pneumonia, bronchitis, asthma and hay fever, its effect here being to allay irritation, subdue spasm, and render expectoration easier.

As a general disinfectant agent for purifying the air of the house during and after the occurrence of contagious diseases, such as measles, scarlet fever, typhoid, smallpox, etc., varoma will be found to possess decided advantages over the non-volatile antiseptics, since the vapor penetrates to parts that cannot be reached by fluids. The fact that it will not injure clothing, furniture, paintings, draperies or delicate fabrics renders it most eligible for this purpose.

The vaporiser furnished with varoma is inexpensive, convenient for application and embodies some entirely new features, rendering it the most perfect in use.

A CENTURY OF MEDICAL HISTORY.—The history of medicine in Erie County for the nineteenth century, which has been running through many numbers of the JOURNAL, is drawing towards completion. Within a short time a limited number of copies will be offered to those who may desire them at \$1.00 net a volume. It will make a book of over 150 pages, profusely illustrated and containing material that is of interest to every physician in the county. In order that we may be advised as to the size of the edition to print it is important that orders be placed at once with

WILLIAM WARREN POTTER, M. D.,

284 Franklin Street, Buffalo, N.Y.

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ORIGINAL COMMUNICATIONS.

Remarks on Sepsis and Its Treatment.

By JAMES E. KING, M. D., Buffalo, N. Y.

Lecturer in Embryology; instructor in obstetrics, University of Buffalo; assistant attending gynecologist, Buffalo General Hospital; assistant obstetrician, Erie County Hospital; Fellow of the British Gynecological Society; member New York State Medical Association, etc.

THE recent advances in bacteriology have brought the germ theory of disease into the domain of science. Except a very few of the infectious processes, the specific cause has been definitely determined and described and prophylaxis and preventive medicine form a very great part of our treatment. In no way has this knowledge been of greater service than in our understanding of sepsis. By prophylaxis and antiseptic treatment, the hundreds of women who yearly succumbed to puerperal fever and those who died of septic wounds have been reduced to inconsiderable numbers. But while our knowledge has been of inestimable value in reducing the frequency, yet with but few exceptions has it enabled us to cut short an infectious disease by direct attack upon the germ or their toxins. Diphtheria, tetanus, and rabies may claim a specific treatment, based upon our knowledge of the causes, but the vast majority still run their course, modified only by our efforts. This is true in obscure cases of sepsis, and puerperal fever, which is well developed, is as alarming to the practitioner of today as in earlier times when our knowledge was much less. It is my purpose to consider sepsis briefly, and to determine if as yet we have a treatment for these conditions.

Under the general term of sepsis, I include those conditions which arise as the result of the activity of the saprophytic or the pyogenic cocci. The conditions thus arising may be classi-

1. Read before the Roswell Park Medical Club, January 6, 1902.

fied under the headings of sapremia, or septic intoxication, and septicemia, or septic infection. The bacteria causing sapremia are of interest to us only in the part they play in mixed infections by their association with the pyogens. In sapremia the bacteria are acting upon dead organic matter and it is the absorption of the ptomaines alone that produces the familiar clinical picture. The bacteria are at work outside of the living tissues and constitutional treatment then could have no effect or in any way influence the growth of the germs. As the causative factor in septicemia, the pyogens occupy the first rank, and it is seldom that we see sepsis arising alone from the colon bacillus or the gonococcus, although these are not infrequently seen as mixed infections. In septicemia the bacteria work on living tissues, resulting in the destruction of the cells and the production of leucomaines which are thus readily absorbed. This is the simplest expression of septic infection which may go a step further and the germs themselves enter the blood and exert their influence on the blood as a tissue. Or the process may even proceed further and bits of the suppurating focus may enter the veins and be carried to remote parts of the body, resulting in pyemia. These are the three expressions of septic infection, all due to the pyogens and their products.

Let us look for a moment at the characteristics and behavior of these pus germs in the tissues. The true pus producers are classified as the staphylococcus and the streptococcus. The former are so called because of their appearance in clusters under the microscope. They are durable, being quite resistant to the action of antiseptics and requiring several minutes boiling for their destruction. In the tissues they are usually found in circumscribed collections of pus, and they do not tend to spread, as around such a process is found a barrier of round cell infiltration which tends to its limitation. These germs are the principal ones in furunculosis, abscesses, and empyemas. The streptococci are seen in chains and they also are resistant to heat and germicides, but they differ in one particular from the staphylococci, in that they tend to spread through the medium of the lymphatics, and we find them concerned in the production of cellulitis, peritonitis, and all spreading inflammations. These two varieties are commonly associated. Besides these, however, in situations convenient for the infection, the colon bacillus is often found. The same is true of the gonococcus, although the latter is sometimes found alone. Thus we see that in septic-

cemia the bacteria are exerting their activity on living tissue, and it is quite possible that treatment through the general circulation and lymphatics may be expected to find its way to the focus of absorption, and to influence the germs and toxins in the blood. Clinically, we find a great difference in the behavior of germs which under the microscope and in growth are exactly the same. The one may be extremely virulent and the other toxic to a comparatively mild degree. This is especially true of the streptococcus and also a well-known fact of the Klebs-Löffler bacillus. So far this phenomenon has been explained by theory only and facts are still wanting.

The morbid changes, as the result of infection vary greatly, depending upon this same virulence, and the length of time that the process has been in progress. The blood is naturally the first tissue of the organism to suffer, and the well known changes in the white cells are produced and the red cells and their carrying power much reduced. Cocci are often found in the blood and the toxins are also found in the fluid element. The changes found in other tissues are due in part to the impoverishment of the blood and also to the toxins. The liver and kidneys as organs of elimination are the first to suffer, and cloudy swelling is usually the result. The heart also receives its share, and the same changes are found.

From the knowledge, then, we have of sepsis, the indications for treatment are quite clear; first, to be rid of the focus of trouble and to prevent further development, and second to neutralise the toxins and their effects. To meet these indications we naturally turn to the serum treatment. Here, however, we are doomed to disappointment, for the antitoxin serum for sepsis has been an almost unqualified failure. Early in the '90's Marmarek prepared a serum that was fatal to rabbits in extremely small dosage. With this he obtained the antistreptococcus serum, and in a large number of cases in which he used it, he met with great success. Great hopes were entertained that at last a specific for sepsis had been found, but subsequent investigators failed to verify Marmarek's flattering results. In 1900, the French themselves declared the serum a failure, and that its use was being abandoned. American surgeons also declared against it and the report of a committee from the American Gynecological Society, appointed for the purpose of deciding its merits, reported unfavorably. The reports of Marmarek were based upon the use of the serum in a large number of cases of erysip-

las, and as this disease tends to self limitation and improvement in from seven to ten days, it leads one to think that the improvement took place uninfluenced by treatment. The causes for the failure have been attributed to the use of poor serum, delay in treatment and insufficient dosage. But the best theoretical reason is based upon the fact that, clinically, infections are almost always mixed and that in administering the antistreptococcus serum we are combating but one germ and its effect, and the others are left to disport themselves with impunity in the tissues. So we must relegate antistreptococcus serum with tuberculin to the past and admit that today we have no successful serum treatment for sepsis. The use of antiseptics for attacking the bacteria in their lair through the circulation has been proposed and tried, and the intravenous injection of bichloride and subcutaneous use of carbolic acid have had their day, as the results in no way encouraged or justified their further trial.

There is one treatment that has been before the profession for some years and the reports from which justify our attention. I refer to the silver treatment of Credé. My own interest in the method was stimulated by a number of visits this past summer to Credé, and opportunity afforded to see the application of the remedy by the originator himself. The reports from this treatment are more encouraging than those of any other before proposed, and silver possesses the decided advantage of being nonpoisonous in any dosage. Clinically, it has long been observed that when silver wire was used as suture material suppuration never occurred around the wire, while other sutures but little removed suppurated, perhaps for their entire tract. Laboratory experiment confirmed these facts and to silver we must accredit some peculiar and unexplained property that at least inhibits the growth of bacteria.

This knowledge led to many attempts to utilise this property of silver and catgut by silver nitrate was not unknown. It was left for Credé, however, to make the application of silver and its salts practical. The first attempts were in the use of two salts of silver—the citrate and the lactate. The citrate, or as known by its trade name, itrol, is a stable, nonpoisonous white powder, soluble in 1-4000. Its principal use is as a dusting powder, and as such it has given the greatest satisfaction, but whether or not it possesses any marked advantage over the many excellent dusting powders we now have, the writer is unable to state. It may also be used in the proportion of its solubility as an irrigating

fluid. The lactate or actol is of considerably greater interest. This also is a white powder, soluble in 1-25. As a solid it is somewhat irritating to the tissues; as a solution, however, it possesses all the antiseptic and germicidal properties of the bichloride without its disadvantages. In strong solutions it may be used for irrigating the bowels and uterus without fear of poisonous absorption. It is claimed that the silver salt has the same germicidal action as bichloride when used in double the proportion. From this salt of silver are prepared sponges, catgut and gauze.

An attempt was made to use these salts for their constitutional effect in sepsis and experimentation with animals seemed to promise much, but it was soon found that these salts in solutions of sufficient strength quickly combined with the albumins and were rendered inert. It was therefore seen that to use silver internally, a preparation must be found that was soluble in albumins and would circulate in its metallic form. Efforts in this direction brought forth an allotropic form of silver, known as collargolum, which answers the requirements. It is a pure silver in allotropic form, possessing markedly different properties from the form of silver with which we are familiar. Collargolum is soluble in water in proportion of 1-25, in the weaker solutions, being more readily soluble. There may be at the bottom of the container, however, even with the greatest care, a small amount of insoluble silver. In using solutions for intravenous injection this fact should be remembered and the perfect solution poured off for use. For whatever purpose the solutions should be freshly made, and only distilled water should be used in its preparation; it should be protected from the light, although as a peculiar fact, solutions with the addition of 1 per cent. of albumin are rendered much more stable and they may be kept for a considerable time without deteriorating. Heating to a temperature of 176° F. changes all solutions by a precipitation of insoluble silver. For irrigation it may be used in strengths of from 1-10,000 to 1-100 in septic wounds and cavities. For intravenous injection 5 to 15 grains may be used in a $\frac{1}{2}$ per cent. solution, using only the perfect solution as suggested above. The reaction that follows is no more than that following the introduction of any fluid directly into the circulation. By mouth it may be given in solution or in pill form, but all solutions should contain a percentage of albumin, otherwise the acid of the stomach renders it insoluble.

The most available form, however, is the ointment or unguentum Credé, which contains 15 per cent. of collargolum. It should be protected from the air and light to prevent deterioration. It is used by inunction in doses of 15-45 grains, every 4, 6, or 24 hours, according to the requirements of the case. The technique of its application is of importance and in order to obtain the best results the usual sites for inunction are thoroughly cleansed with soap, water and brush and 20-30 minutes devoted to applying the ointment; the surface is then covered with a piece of protective to insure better absorption. The silver is taken up by the general circulation and can be easily demonstrated in the skin and deeper tissues at the site of the inunction.

The inunction is to be preferred, except in cases where the absorptive powers of the skin are impaired or where a more rapid entrance into the circulation is desired. Other uses in the form of bougies or suppositories will suggest themselves, but time does not permit of their discussion here.

The metal has as yet never been found in the urine or kidneys. The feces often assume a brownish, black color after its use, which suggests the liver as a possible organ of elimination. No matter what the effect upon the condition for which it is administered, silver in the largest quantities has never been known to cause any ill results and no case of argyria has been reported, even where treatment has been prolonged for months.

Now having considered silver as a remedy for sepsis, let us look at its indications and limitations. We must not be unreasonable in our expectations, and it is absurd for any one to look for the absorption of a large collection of pus or for the restoration of a gangrenous appendix by the application of any remedy. The principals of aseptic surgery should always be carried out where they are indicated. Nor is it reasonable to expect too much in cases where the toxins by their virulence or prolonged action, have produced too great a degeneration in the heart or kidneys. It is perfectly possible for a septic condition to improve and the patient to die from the irreparable damage done to these organs. This is true in diphtheria in the use of antitoxin, as those who have observed will testify.

The clearest indications for collargolum are beginning inflammations due to the pyogens. Under this we include cellulitis before formation of pus has occurred, both in the pelvis and

other situations; erysipelas and puerperal sepsis; inflammation of operative wounds; ostitis and many other conditions of inflammation that will suggest themselves. The many reports under the above indications, in the use of silver, have been very gratifying and so successful indeed has it been that failure in clear indications leads one to suspect faulty technique or insufficient dosage.

In literature we find reports on the use of silver in every form of sepsis and infectious disease, but in the latter there seems to be no uniformity of result. True it is that Credé seems in his clinic to get results in other forms of infection. I shall not take your time to cite the eminent authorities who believe in silver for sepsis, nor to mention their reports, but shall refer you to the literature appearing from time to time on the subject. In accepting cases we ought to always bear in mind that sepsis in its course is fickle, spontaneous resolution often taking place where no especial treatment has been instituted, and it is only after a large number of cases have been reported and compared that we may feel that the indications and effects of silver are definitely defined.

The experience that competent observers have had with it, justify our employment of the remedy, as it certainly, without question, is the best we have at the present day to combat sepsis. It being absolutely nonpoisonous and followed by no ill-effect, is an advantage which should encourage and promote its use. My own experience, I confess, has not been large in the use of silver and the citation of one case in which the indications for its use were clear and the result of treatment seemed dependent on its use will be sufficient:

Mrs. D., aged 26; always a well woman and the mother of two children. Finding herself pregnant between three and four months she undertook to bring on abortion by the injection of water on several different occasions, into the uterus. At the end of a week the pain and hemorrhage were so severe that a neighboring physician was called, who after removing the fetus that presented at the os, left her. A day or so following, I was called and with the placental forceps removed the placenta that I found in the os. Uterus was washed out. A few days later a sharp hemorrhage occurred, but ceased spontaneously, and curettage was advised and refused. Patient was not seen again for ten days, when I was called and found her in bed, and I was told that for past week she had been about, and for three days had had pain in right side, gradually getting worse. Temperature, 101°; pulse, 100; examination showed beginning cel-

lulitis of broad ligament; exudate easily felt. At the end of three days the process had extended in front and behind the uterus and the mass in broad ligament was much larger; urination and defecation very painful; lower abdomen tender to the slightest touch; vomiting present and morphine required several times daily by hypodermic. Temperature, 103° and pulse, 120. No chill at any time. A dram of unguentum Credé was rubbed well in at night; this was repeated the following morning and during that day one hypodermic only was required; that evening found her quite comfortable. Temperature, 100° ; pulse, 110. Another dram of the ointment was used and the following morning I found my patient very comfortable and a eighth of morphine only was required during that day. Evening temperature, $99.2-5$; pulse, 96. Examination showed mass still present, but much less tender; abdomen also improved. The improvement from this time was rapid; rises of temperature were transient; the ointment was continued once daily for several days. It required several weeks for entire absorption of the exudate, but the improvement was uninterrupted.

The only treatment used with the silver was hot douches, which I am sure had but little effect, because of the pain it was not possible to get the best results from them. This result too coincides with others in similar cases, and I believe that I am justified in attributing the rapid improvement to the use of silver. The other cases in which I used it were pus cases, which after the pus was evacuated followed the ordinary course to recovery. One other was a case of acute bulbar paralysis in which the patient died in 48 hours after the first symptoms appeared.

I have tried to show what collargolum is, the method of its application and the indications for its use. Perhaps many have employed it and met with disappointment. I can only urge further trial, using it as early in cases as possible. We do not always find antitoxin successful, but the unsuccessful cases are the late ones. Give unguentum Credé the same chance as antitoxin and use it in sufficient quantities, and there is no question but what in properly selected cases results will be obtained.

DISCUSSION.

Dr. GROVER WENDE said he had tried it on 25 to 50 cases of impetigo contagiosa, where it was directly indicated. In these lesions there is a mixture of staphylococci and streptococci. The lesion being superficial the whole area can be covered with the application. He had also tried it in pustular eczema, the latest stages of which both the pyogens are found. He got no results. On the other hand, the old remedy—ammoniated mer-

cury—will produce decided results in impetigo in 24 to 48 hours. Dr. Wende advanced the suggestion that the silver acted only upon the toxins and not upon the germs themselves. This will account for its failure in the foregoing where no constitutional disturbances are ever present.

Dr. A. G. BENNETT said he had tried it in one case of rather a rare disease—descemetitis—an inflammation of the whole uveal tract, that is taking in the choroid, ciliary body and iris. The iris is always inflamed generally with adhesions; there are always deposits, on the interior surface of the cornea. Of all diseases that he has ever treated, with one exception, this is the most obstinate. This is the only case of that disease that was ever cured. He had had seven or eight that never effected a cure until he used Credé's ointment on this one. It was due to systemic gonorrheal infection. And the case was as bad as he had ever seen. Inunctions were given once a day, a dram each time. He also reported success in gonorrheal bubo, which under inunctions rapidly subsided.

Dr. W. E. DIGNEN said he had used it on one case of sepsis following miscarriage. The results were good from some cause or other.

Dr. GEO. F. COTT said he had seen it used in one case. He had been called in consultation in a case of apparent middle-ear disease. There had been sore throat for some days, then pain in the ear until rupture of the drum-head with the escape of serum. This did not remedy matters much for the pain appeared in the external canal, which the physician had punctured the day before, finding purulent material and blood. The canal was excessively swollen and could not be examined. The skin, the periosteum and the external canal were freely incised with the escape of considerable blood. The next day the temperature was 104°. The day following the doctor saw her and suggested erysipelas which had begun in the throat, invaded the middle-ear and then extended in the external canal. A culture revealed the presence of streptococci in the secretions. Credé's ointment, one ounce daily, was used in conjunction with antistreptococcic serum. Result: uninterrupted recovery.

Dr. KING—To the question on the use of silver in gonorrhea I would say that the reports of the use of Credé's preparation in gonorrhea were conflicting. Credé told me personally of a large number of cases treated by an unction of which a

fair proportion treated in this manner showed marked improvement and speedy cure; other cases required additional treatment. In gonorrheal rheumatism he had had better success and quite uniform results.

In regard to Dr. Wende's experience I have never seen it used as a simple application. Credé never uses it in that way, always using the systemic treatment by inunction, never simply by applying the ointment. In answer to Dr. Gibson's question as to the mode of application, I would state that it was a very important part of the procedure. Its proper application sometimes means success, where otherwise you would have failure. Credé says that a large number of the reported failures are undoubtedly due to the faulty methods of application. First be sure that the patient's skin is in such condition that absorption may occur; prepare it by scrubbing and softening, then apply the ointment by friction, continuing twenty to thirty minutes, or even longer, in order that the whole amount may be taken up by the skin. The usual locations for inunctions are chosen. In regard to the effect of repeated applications on the same spot he could not speak, having never seen it done.

In cases where the silver has not been absorbed by the skin, Credé resorts to the intravenous methods; but unless contraindicated, he always uses inunctions.

Doses depend altogether on results. Any amount may be used without fear of ill effects, either internally or by inunction. There never has been a report indicating that there had been any untoward symptoms, as an ounce a day has been used without any bad effects. The usual dose is anywhere from 15 to 45 grains to the inunction. It may be increased either in amount or frequency of application. Collargolum is used internally in aqueous solution. All solutions are much more stable if albumin be added. Albumin requires administration by mouth, for then the gastric juice does not cause precipitation. Solutions should be freshly made and protected from the light. By the addition of albumin, keeping in the dark and in closely stopped bottles, a solution can be kept for several weeks. The better plan is to keep it in powder and make it fresh. The drug may be administered at intervals of four, six or eight hours, always remembering it has no poisonous effects.

Credé exhibited cultures of various organisms in which he had placed bits of silver wire. For an area around each piece of wire, about an eighth of an inch, bacteria failed to grow, while

in all other locations they multiplied in great abundance. In other experiments, he showed the incubation of germ growth by the action of these preparations.

One of Credé's favorite treatments is by placing a pill or bougie in a sinus or wound and leaving it. The same thing is done in sepsis of the uterus. A pill or bougie is left two or three days, the gauze being packed against the surface.

Dr. King had never seen the preparation used in syphilis.

What Shall Be Done with the Professional Midwife?¹

By MAURICE J. LEWI, M. D., New York.

FIGURES furnished by the Department of Health of the City of New York, show that during the year 1901, 80,735 births were reported, of which number 42,253 were reported by physicians, and 38,482 by midwives. The figures for the preceding years are very much the same as those just quoted.

Personal investigation through the medium of prominent physicians in the City of New York shows an undivided opinion based upon their experience that great evils are wrought to the community by reason of the incapacity and the negligence of these midwives.

It is a difficult matter to determine just how many cases of disease and deformity are properly chargeable to incompetency on the part of midwives at the bedside of the lying-in woman and at the birth of the child.

Suffice it, our hospitals and dispensaries are daily witnesses to the criminality which permits ignorant women to act as medical guardians at the birth of the child. The consensus of opinion, which holds this ignorance responsible for the many cases of ophthalmia neonatorum, and of ruptured perineums and of lacerated ora uterorum, is a conclusion well worthy of recognition, for it is unbiased and is gleaned from the actual experience of scientific men who lead in their several specialties.

By reason of the public lack of knowledge of the subject it has ever devolved on the medical profession to correct sanitary and health abuses, and as heretofore the laity expects the profession of medicine, through its accredited society or societies, to point out the remedy, when the law makers may be expected

1. Read at the annual meeting of the Medical Society of the State of New York, January 28, 1902.

to act. The difficulty up to this time in consummating a correction of this abuse, and a mitigation of this suffering has been due to a lack of unanimity on the part of the doctors as to method and manner.

Those opposed to interference state: "If you legalise these midwives, you permit uneducated persons to practise a branch of medicine, which practice requires more knowledge than the educated midwife can possess." The other faction has said: "Educate these midwives as they are educated in Europe, and there will be a mitigation of existing evils." The ideal method would, of course, be that which would make it legally necessary for one practising midwifery to be possessed of the knowledge essential to practise medicine generally. But such a view is utopian as long as the cities of this country are filled with a cosmopolitan population carrying with them to their new homes the old ideas regarding the need for midwives, and so long as no law other than a health board regulation, necessarily more honored in the breach than in the observance, is the only trip encountered by the would-be practitioner of midwifery, so long will there be women to be delivered by midwives in preference to doctors, and so long will there be midwives who are ignorant.

We can not perch ourselves on an eminence and look down upon the world and say: "You must come to our views, you who are suffering because of these abuses." But those of the profession who have all along hoped that this reckless practice of midwifery would be corrected by legislation calling for an abandonment of midwifery practice, by all not licensed to practise medicine, must cease from hoping for such an outcome. We are confronted with a condition not a theory. We know that the asylums for the blind are being crowded with children rendered sightless because of the neglect, criminal or otherwise, of these midwives. We know that dispensaries and hospitals are daily crowded with women who have been maimed and crippled because of the neglect or otherwise of this same class of people. We know that abortions are being daily committed by women advertising themselves as professional midwives. We know that the farming out of children is being carried on by many of this same class. Is it not high time that the medical profession of the State of New York should step in and demand an abatement of the conditions enumerated? Unitedly presenting our views to the legislature, is it not reasonable to expect

that the legislature would come to the rescue? And would not a mitigation of these evils bring credit to the medical profession, if through its initiative this reform were accomplished?

And just as we would be honored for bringing this to pass, so are we today discredited, not by the laity, for they do not understand the situation, but by the thinking part of the profession which feels that each blind child, rendered so by failure on the part of the profession to intelligently regulate the practice of midwifery, is a crime for which the profession is responsible.

To quarrel about details thereby preventing the consummation of a corrective law, is as wrong as it would be for the various religious sects to quarrel with one another as to their creeds at the portals of heaven. The remedy:

Let the profession unite in petitioning the legislature to pass a law that on and after a given date no persons shall be permitted to practise midwifery (unless previously registered as having attended at least 10 cases of confinement), who is not licensed so to practise after examinations to be conducted on given topics, under rules and regulations to be formulated by the regents of the University of the State of New York, or by the State Board of Health, as you will.

The verbiage of this bill could be simple and still effective. It need not take up more space than a stick in a newspaper column. This caviling as to whose functions it is to attend cases of this character, the plaint of the sentimentalist in medicine that the profession is being insulted by recognising legally those who carry on this practise, and all other fancies, should be set aside and the great thought kept in mind that the public is entitled to a better condition of affairs, and that crime and physical wreck in the name of midwifery should cease.

149 W. 85TH STREET.

Report of the Committee on Hygiene.

By HENRY REED HOPKINS, Chairman, and Colleagues.

To the Medical Society of the State of New York:

THE prominent topics emphasised in the recent reports of your committee, continue to be the subjects demanding the attention of the sanitarian.

The enormous death-rate from typhoid fever in the state attracts the attention of all well informed persons to the con-

1. Read at the ninety-sixth annual meeting at Albany, January 28, 1902.

tinued impurity of the water supply of the entire state, to the lack of intelligence and appreciation of this prime necessity of health, to the corresponding want of efficiency as hygienists of our medical profession.

That there is more than four times the morbidity and mortality from typhoid fever, in the chief cities of this state, than in the large cities of Europe, is a most humiliating demonstration.

Your committee again directs attention to the fact that in the main the responsibility for this disgraceful state of impure water supply, and the consequent loss of time, money, and life from typhoid fever rests upon the medical profession as the same is represented in the Medical Society of the State of New York, and calls upon the several local societies to make this question one of especial study to the end that those in authority may speedily be induced to apply the proper remedy.

The real sanatory problem of the day—than which there has been none more important in history, the prevention and cure of consumption by state control—has made slow but positive progress. The tactics of the enemies of the cause seem to have been to confuse, to distract, to delay, to obstruct by impossible suggestions of help. A state sanatorium for the treatment of cases of incipient consumption was demanded by abundant and conclusive experience, advised by this society and this demand was supported by overwhelming public sentiment. The selection of a site furnished the occasion for meddlesome and mischievous suggestions, an artificial activity of some self-styled friends of the cause, and required much patience, wisdom and loyalty on the part of the right-minded members of the board of trustees, in order that a wrong choice might not ruin the enterprise at its beginning. The delay thus caused has been most exasperating, and trying, but has given opportunity of testing how sane the movement is, how imperative is the demand on the part of the people, and of the futility of attempting to kill that which is demanded in the interests of the public health.

Your committee with all emphasis renew and reaffirm what it has heretofore declared as to the importance of this matter, and advise that this society renew its pledge of confidence and support to the cause of state promotion and cure of consumption in sanatoria as the state's highest duty and most glorious opportunity.

Your committee has given consideration to the recent increase of knowledge regarding the relation of some of the

smaller insects to the spread of disease. The rôle of certain varieties of mosquitoes to the spread of malaria and yellow fever opens a vista for the prevention of these diseases of immense attractiveness and potentiality. It would seem that the near future is to demonstrate that some of the fairest portions of the earth, that have hitherto been thought unsuitable for Anglo-Saxon inhabitation, by reason of malarial endemicity are to be reclaimed, and that modern sanitary science is not only to drive yellow fever from off the earth as it has already been driven from Cuba and Porto Rico, but that by a knowledge of the ague-bearing mosquito, the sphere for Anglo-Saxon residence and activity is to be enormously expanded.

The continuous and unusual presence of smallpox in various parts of the state moves your committee to urge upon the society the importance of a more intelligent supervision of the results of vaccination, the importance of greater care and watchfulness in determining that primary vaccinations are successful, in demanding legislation requiring a general revaccination of all persons at puberty and after puberty, at least once in ten years, and that no child be permitted to attend any public or parochial school unless the same can show the marks of thorough vaccination.

Here your committee is minded to refer to, and to deplore and protest the policy of the present administration of the state in reference to the public health and the state board of health. Your committee has the conviction, that it is not good statesmanship to neglect or to minimise the ordinary means found in operation in all civilised communities for the protection of the public health; and that in the whole history of extravagant and wasteful expenditure, there is nothing more extravagant and wasteful, than a penurious economy in appropriations for the prevention of the preventable diseases; that in the department of public health should ever be found men of the highest ideals and the noblest attainments, for the reason that the problems they encounter are the most intricate, trying and important that ever engaged the mind of man, and that it is of prime importance that the men of this department should be leaders of thought and always in full command of the confidence of the people.

How shallow is the intelligence, how thin the veneer of statesmanship, what a bar to real economy and progress is the policy which fixes the annual salary of the state commissioner

of health at \$3,500 when the commissioner of fisheries and game gets \$5,000; the state architect, \$7,500, and the three railroad commissioners, \$8,000 each? And how humiliating is the easy criticism of the politician, and sometimes law-maker, who asks, what does the state board of health do, and answers himself—Oh, they keep a record of the dead ones, and get well paid for their work!

The practical working of the unfortunate schisms in medicine is seen in destroying the public confidence even in medical measures for the protection of the people's lives, by the prevention of the preventable diseases, and shows its real colors in the indifference of our legislators to the appeals or advice of this society upon matters of public health, in the penurious appropriation for the maintenance of our state board of health and in the conspicuously inadequate salary of the state commissioner of health.

The members of the legal profession seem to fight each other vehemently in court, but are not known to quarrel among themselves when urging that the salary of the judge be made commensurate with the dignity of his office, and it is so.

The people have ever reserved to themselves the right to say who shall practise the healing art, and what qualifications if any such persons shall have. The questions of what preliminary education such persons shall have, what shall be considered to constitute the science of preventive medicine, a knowledge of which all persons who practise any part of the healing art shall have, are ones upon which the people will probably listen to, and possibly be advised by this society. The broader questions of how the healing art shall be practised, what the size of a dose of a particular remedy for a particular disease shall be, whether remedies shall be gathered from nature's inorganic kingdom, or from her organic storehouse, or from both sources at will, whether men shall use water within and without, massage, electricity, hypnotism, or mental suggestion, with or without the added enforcement of religious belief, are those concerning which the people have ever shown themselves unwilling to be advised and intolerant of dictation.

Not understanding or not comprehending the spirit of the people in this important direction has in times past placed this society in a false light upon questions of great popular interest, if not of public importance.

Read in the light of history it seems clear that it would have been better for the medical profession, better for the great inter-

ests of the public health, which the medical profession must ever guard, if this society could have refrained from seeming to want to dictate to the people how they should be doctored, could have contented itself with advising, and could have withheld that advice until it was requested.

Your committee is compelled to force these observations upon your attention by the logic of recent events. The people of the state are experimenting with osteopathy and Eddyism, just as a few years ago they were experimenting with homeopathy and eclecticism. There is great danger now, as then, that this society wishing to advise from abundant knowledge, will be found to seem to dictate to the people how the people shall conduct their own affairs; that the ever to be lamented blunders of 1857 and 1865 may be repeated in this the beginning of the new century. It would seem that this society should have learned by sad experience, that the right is not always expedient, that it is wiser to be content to advise, and perchance to guide in medical questions, to be content to memorialise and to protest with becoming dignity, remembering that the weightier matters,—higher medical education, increased medical efficiency and better protection to the public health,—may only be adequately promoted and prospered by a united medical profession inspiring, guiding and leading a sympathetic and appreciative people.

H. R. HOPKINS, *Chairman.*

GEO. B. FOWLER.

J. H. PRYOR.

J. M. MOSHER.

M. A. VEEDER.

J. L. HEFFRON.

New York State Department of Health—Cancer Laboratory, University of Buffalo.

FOURTH ANNUAL REPORT, 1902.

Dr. Daniel Lewis, Commissioner of Health, Albany, N.Y.:

Sir—I have the honor and the pleasure herewith to submit to you a report of the conduct and operations of this laboratory since it passed under the control of the State Department of Health last June. As is known it had been previously conducted as an independent institution and had published its third annual report about that time, consequently not a year has elapsed since the change in status and the appearance of our

last report, all of which will explain why it is not possible now to make a report covering a fiscal year of work.

Our first year as a part of the state board practically does not expire until the first of October next, therefore a report submitted to you at this time must be but partial and in the time limit incomplete. The transfer of this laboratory above alluded to, seems to be an exceedingly happy solution of certain difficulties of its maintenance, but it at the same time necessitated our appropriation being spread over sixteen months of time instead of twelve, and this in turn necessitated reducing expenses, especially through the summer, so far as possible. Therefore, during the summer but a relatively small amount of work was done, and one of our staff—namely, Dr. Clowes, was authorised to spend some weeks abroad in visiting other laboratories and ascertaining so far as he could what was going on in other parts of the world in similar lines of study.

Now, and for the first time in the history of such investigations, a suitable building has been supplied and is just being opened for this particular line of research. It has been built by the medical department of the University of Buffalo with funds supplied by generous friends, who provided the land, and especially by Mrs. W. H. Gratwick, who has furnished the means with which to erect and equip a beautiful research laboratory. The ground and floor plans of this building were published in our last annual report. At that time, however, the walls were hardly up. Now I am able to report that the building is practically complete and already practically occupied, and that hereafter all the work done by this department of the State Board of Health will be conducted in this building, which is tendered to the State by the medical department of the University of Buffalo, free of rent and for this purpose, only the necessary running expenses of the institution being borne by the state. These running expenses include coal, water, electric power, light, gas, and the like.

It is scarcely necessary to present again these detailed plans, but a brief description of the building may be of service. It is 50 by 60 feet in area, built of brick and terra cotta. The basement contains the heating apparatus, cold storage room, combustion room, machinery room, etc. The first floor provides a clinical laboratory with room for work on contagious diseases, the outfit for photomicrography, private laboratory for the clinical microscopist, and janitor's quarters. The second floor con-

tains offices, library, museum, surgical laboratory and pathological laboratory, with an annex for the pathologist. The third floor is divided between the departments of bacteriology and chemistry and contains also a large photographing room, with private rooms for the chemist and the bacteriologist. Above the third floor is ample space for caring for small animals and housing the ventilating apparatus.

This laboratory stands just across the street from the General Hospital, where a large amount of the clinical material utilised for the study of cancer is secured. The hospital supplies an abundance of such material, while in addition yet more is received from all over the state, as well as often from outside.

The laboratory staff is the same as when our last report was published—namely, Dr. Roswell Park, Director; Dr. H. R. Gaylord, pathologist; Dr. Irving P. Lyon, clinical microscopist; Dr. G. H. A. Clowes, chemist; and Dr. H. C. Matzinger, bacteriologist. In addition there is a regular stenographer and secretary, with assistants who vary in number according to the amount of work to be done, they being often volunteers or working at a merely nominal salary.

Facilities have been provided in the building for special investigations and for special students, numerous intimations having been received from various investigators that they would like to come here and pursue special studies in this subject in connection with our work.

As each member of our staff has been experimenting and working along special lines, it will perhaps be worth while to indicate the character of the work done by each.

Since the publication of our last annual report Dr. Gaylord has continued work along the lines indicated in his preliminary report. The status of the investigation is not advanced greatly beyond the point indicated at that time. There have appeared, however, in various foreign journals reports of investigations indicating that other observers have reached similar conclusions to those indicated. The first of these of interest is an article by Pianese, of Naples, on A Protozoon Infecting the Epithelium of the Kidney Tubules of the Guinea-pig. Pianese published a long monograph in 1895 and at that time arrived at the conclusion that all the so-called cell inclusions of cancer were degeneration products. He has now arrived at the conclusion that the organism which he has just been studying presents appearances in the tissue and causes changes in the epithelium which are very

similar to or indistinguishable from those found in cancer. This is a very significant article.

Nils Sjöbring, of Lund, who published an article on the cell inclusions in cancer and interpreted them as protozoa in 1890, has published and demonstrated cultures of organisms obtained from cancer. These he believes belong to the protozoa, but to an as yet unrecognised class. Prof. von Leyden, of Berlin, has published an article describing ameboid bodies in peritoneal fluid, and the presence of cell inclusions which are identical with those described by Thoma, Sjöbring, Plimmer and ourselves. He thinks that the cell inclusions are protozoa. The amœbæ observed by him were passed upon by Prof. Schaudin, the biologist, and have received recognition in recent biological literature. The most striking confirmation of our work is an article by Prof. Bosc, of Montpellier, France, which appeared in the May number of the French Archives for Pathology. The article is a comparative study of vaccine, variola and cancer, and to this extent covers almost identical ground with our own observations. He has likewise studied the disease known as sheep-pox, the organism of which he considers more closely related to the organism found in cancer. The appearance of this article almost synchronously with our own adds great interest to the question.

As to the status of the vaccine organism with which we have compared our findings in cancer, a significant article has appeared by von Wasielewski, who has given many years to the investigation of vaccine, and concludes that the characteristic bodies found in the epithelium in vaccination are the vaccine organism. One feature in his reasoning in this connection is that the vaccine organism can be removed by filtration through a Pasteur bougie and is, therefore, of invisible dimensions. It may be stated that to our minds this is the only possible criticism of the present status of our own work, in that thus far we have been unable to entirely rule out the possibility of our results being due to the presence of an infinitely minute and invisible parasite. We have in contemplation, however, experiments which we hope will ultimately give us evidence upon this point.

A further comparison of our work with that of Prof. Schueler, of Berlin, shows a number of discrepancies, inasmuch as many of the forms described by him are much larger than any observed by ourselves. We are at present doubtful of the identity of our observations with his.

As to the possible nature of the organisms described by Dr. Gaylord, interesting and suggestive observations have been made by Nawaschin and Podwyssotsky upon an organism which in some respects resembles those described by us. The organism in question is the *plasmodiophora brassicæ*. It belongs to a class which lies midway between the animal and vegetable organisms, and the most recent classification (Döfle in a work on Protozoa as the Cause of Disease,) classifies them as protozoa or animal parasites. The organism causes the disease known as clubbing or club-root, and infects cabbages, turnips, radishes, etc., and is widely distributed both in this country and abroad. The organism causes true tumor formation in the infected vegetable, and Podwyssotsky has recently shown that it is capable of infecting animals, in which case it produces tumors and infects the cells. The appearance of this organism, both in the cells of the plant and in infected animals, closely resembles the cell inclusions described by Thoma, Sjöbring, Plimmer and Gaylord.

While we have perhaps modified our views regarding some of the details connected with our previous experiments, the main points stand as before, and have received both direct and indirect confirmation by the observations of the scientists quoted above.

In view of the recent discovery of the transmission of certain diseases by the stick or bite of infected mosquitoes (malaria, yellow fever) and other insects (Texas cattle fever from the cattle tick, *Boophilus bovis*), a new field has been opened for the experimental investigation of the cause and spread of various other diseases of unknown etiology. Cancer is one of these diseases, and for years the theory has been occasionally suggested that it might possibly be transmitted by certain insects, *e. g.*, wasps, bed bugs, mosquitoes, and the like. Dr. Irving P. Lyon has made preliminary experiments on this theory. During the month of July, 1901, mosquitoes (Genus *Culex*), reared from larvæ, were fed for days on food smeared with carcinoma and sarcoma and then released in a mosquito-proof cage containing a monkey and a guinea-pig, the latter partially shaved in order to better expose it to the attack of the mosquitoes. The mosquitoes were renewed from time to time in batches of ten to fifty. The result of the experiment appears to have been negative, as the monkey and guinea-pig are still (January, 1902,) in good health and show no evidence of malignant disease. They will be kept under further observation.

The line of experiment here mentioned should be extended to include other varieties of mosquitoes and other common domestic insects. Were a positive result obtained in such an investigation its importance would be at once apparent, for the control of the disease would then be a simple matter of protecting oneself from the bites of the infecting insect.

The statistical study of cancer, reported by Dr. Irving P. Lyon for Buffalo in our last annual report, has also been continued during the present fiscal year. Dr. Lyon has begun a more or less systematic analysis of the mortality returns to the State Board of Health by the different sanitary districts of the state and the specified places within those districts during the past fifteen years. The purpose of this study is to ascertain whether any sections of the state or towns have been especially afflicted with cancer out of proportion to their population and during a sufficiently extended period of time to remove the possibility of chance as an explanation of such high cancer mortality. Although this investigation, because of its wide scope, has been scarcely more than begun, enough of interest and importance has already been discovered to indicate its great value in elucidating the theory of the parasitic or infectious nature of cancer.

It appears that the east central sanitary district has shown the highest mortality rate from cancer in the state, and among the "specified" localities in this sanitary district the town of Brookfield stands preëminently first in its sacrifice of life to this disease. This town, consisting of a purely rural community, during the fifteen-year period, 1886-1900, had a total mortality of 720 deaths from all causes, of which 82 were due to cancer, *i. e.*, out of every 8.7 persons of all ages dying from all causes, 1 died from cancer. This rate from cancer exceeds the average rate from consumption for the state during the ten years, 1890-1899, the rate from consumption being 1 out of 9.0 deaths from all causes. Not only is the gross mortality rate from cancer in this town most extraordinary, but a special investigation in this town, now being conducted by Dr. Lyon, shows a large number of "cancer houses" so-called from their having had two or more cases of cancer develop in them. With this investigation only now well under way and far from completed, eleven such houses are known, 10 having 2 cases, and 1 showing 3 cases of cancer each. In only 4 out of the 11 cancer houses was the second case related by blood to the first case of cancer.

Just over the border line of this town in the township of Plainfeld, in a sparsely populated country, there has been discovered a special cancer center, where nearly all of the houses within a radius of one-fourth mile have had from 1 to 5 cases each, there being 8 or 9 such houses, 1 with 2 cases (mother and son) 1 with 3 cases (husband, wife and non-related third person); 1 with 5 cases (husband, wife and 3 children), and the others with one case each. Such a condition as here discovered, as well as the general high mortality rate for the Town of Brookfield with its numerous "cancer houses" goes far toward confirming the belief that cancer is an infectious disease, widely distributed in the world, but with definite endemic foci or breeding places of the disease.

During the summer, Dr. Clowes made a short tour in Europe in the course of which he visited several of the leading scientific research laboratories and universities, both in England and on the continent. A considerable amount of time was devoted to visiting the most prominent workers in the field of cancer with a view to making ourselves thoroughly acquainted with the work which is being carried on by others on the problem in question. Several leading scientific authorities both in France and Germany were consulted as to their views regarding the question at present under investigation in the state laboratory. It was most satisfactory to find that the work accomplished in this laboratory had created a most favorable impression abroad and that our theoretical conclusions were in most cases heartily supported.

This tour also afforded Dr. Clowes an opportunity for visiting numerous modern institutions for research, where he made observations regarding the latest improvements in laboratory methods and equipment employed in those institutions, with a view to improving the efficiency of our own laboratory if possible. While on the spot he was also enabled to procure a considerable amount of material and literature which would have otherwise have been difficult to obtain.

The chemical and bacteriological departments of the state laboratory, which have been carried on to a considerable extent in conjunction by Drs. Clowes and Matzinger, during the few months that have elapsed since the last report was published, have been principally occupied in pursuing the course of work laid down in the report in question. These departments have been seriously handicapped by the inadequate temporary quarters provided for them pending the completion of the new

building. This necessitated the actual work being limited to investigations of a more or less general and preliminary nature, which investigations have been of considerable value in indicating those lines along which more exhaustive studies should be pursued during the coming months. The problems involved in connection with parasites which may play a rôle in the production of cancer, and their culture on artificial media, have been pursued along two distinct lines. In the first place, efforts have been made to acclimatise yeasts, fungi, protozoa and the like, to development in living animals, and then conditions were chosen which from a theoretical standpoint would be most likely to lead to the formation of tumors by this means. On the other hand, every possible effort is being made to cultivate parasites from cancerous material on artificial media and by every possible means to facilitate their growth and development in animals. Investigations of a toxicological and physiological nature have also been carried out, but this portion of the work is of such a preliminary nature and one requiring such a considerable amount of confirmation, as to make it impossible to publish any results at present. The problems of metabolism involved in this disease have also been attacked from a chemical standpoint and very elaborate investigations are planned for the forthcoming year. A considerable number of experiments, especially of a micro-chemical nature, have been carried on with a view to confirming and supporting the work of the pathological department. This applies especially to those investigations regarding parasites present in tumors and other organisms, such as coccidia and *plasmodiophora brassicae*, regarding whose nature work is at present being carried on in the laboratory. A great portion of the time of this department has been devoted to working up the literature of the subject, which is very extensive. Abstracts have been made with a view to facilitating the work and experiments of other investigators repeated in order to establish the correctness or errors of their findings. Our efforts at the present moment are principally devoted to formulating a systematic plan for future work on a larger scale and in directing the construction and arrangement of the new laboratory with a view to facilitating as far as possible the work of the future.

It will thus be seen that a great deal of work has been done on comparative lines, which is most suggestive, and which, nevertheless, is not yet in shape for publication as a contribution

to science. No small part of our work has consisted in examining, indexing and comparing the work and results of others in all parts of the world. We have felt that frequent comparisons with the conclusions reached by others are the greatest safeguard against a repetition of their errors. Therefore we have endeavored to make a careful study of the world's literature on the subject, which is very rich, the study being both extremely valuable and time consuming.

It is pleasant to note that this collective and scientific study of cancer which was originated in New York State, this being the first laboratory devoted to the work which was ever organized, has been followed and imitated in many other parts of the world. In England, for instance, there is now a National Cancer Society, which two years ago sent over to this laboratory a special investigator who, upon his return, reported most favorably upon the work done here. In London, the Middlesex Hospital has organized a similar laboratory and devoted certain space both in the building and in the wards to this work. Similar interest has also been shown in Birmingham. The German Society for the Study of Cancer has already done a large amount of statistical work, and manifested every desire to coöperate with this Laboratory. In fact, two members of our staff have been made foreign members of that organisation (Drs. Park and Gaylord). In Russia a donation of 700,000 rubles has been recently made for a similar purpose. During the past summer one of the most celebrated of German surgeons, Prof. Czerny, of Heidelberg, made a special visit to this country for the purpose of seeing this laboratory and the various cancer hospitals in the United States. He expressed himself as in most thorough accord with the methods and the results of our work. Prof. Koch, of Germany, has also received recently a large grant from the German Government for similar work, and Prof. Ehrlich has been the recipient of a large grant from private sources for the same purpose and has announced that hereafter he expects to devote his principal energies to this study; all of which will indicate the widespread interest among scientists in this line of research.

The results of our past year's work have been to strengthen our ever growing convictions that cancer is an infectious disease, which are both sustained and confirmed by the work of leading observers all over the world, *i. e.*, men who are everywhere regarded as authorities. Moreover we have never seen any reason

to alter the statements upon which in the beginning this laboratory was largely founded—namely, that cancer as a disease is on the increase. This has been abundantly shown by returns from various other state boards of health, as well as by statistics from nearly every civilised country in the world where adequate records are kept. If cancer prove to be a parasitic disease, the importance of its recognition may be perhaps better estimated from the good that has already come from the discovery of the parasites peculiar to malaria and yellow fever, since now that they are known we have learned how to prevent and eradicate these diseases.

Much has been said in recent literature of the value of the Röntgen or *x*-ray in the therapy of cancer. I would like to report that generous friends have offered to supply the necessary apparatus for experimentation in this direction and that the General Hospital will supply the space and the accommodations required for the same. I shall hope, therefore, with the next annual report to be able to say something upon our results with this somewhat hopeful remedy.

I cannot close this report without my expression of appreciation of your own courtesy and kindly coöperation, not to say active interest, in the operations of this laboratory and I ought to say as much for my colleagues in the work, whose names are mentioned above, who have never failed at any time in interest in their work or alertness in its conduct. Organised and equipped as we now are, I feel that if the solution of the tremendous problems before us is ever to be attained by human effort, we are in a position to reach it if only adequately supported. Bespeaking, then, from you and those in authority, your hearty support and your continued interest, I have the honor to be

Very respectfully yours,

ROSWELL PARK,
Director.

IN A study of preëxisting heart disease in reference to surgical operations, Mayo (*Amer. Jour. of the Med. Sciences*, August, 1901.) states that between the ages of 10 and 40 valvular heart disease is usually well compensated, and if the heart action is easy and the general circulation is in pretty good condition, operative risk is not great. If the valvular lesion is associated with myocarditis the danger of operation is very greatly increased, and under such circumstances only operations of urgency are justifiable.

St. Mary's Infant Asylum and Lying-in Hospital, Buffalo, N. Y.

REPORT OF CASES FOR THE YEAR 1901 IN MATERNITY DEPARTMENT.

By L. G. HANLEY, M. D., Chief Obstetrician.

Case I.—Age 32, multipara; uterine pains began at 2 a.m., December 31, 1900; membranes ruptured at 12 p.m. Twins. Double breach. First child, male, born at 11.25; second, female, at 11.45; two sacs, one placenta; no laceration. Weight of first child, 7½ lbs. Weight of second child, 8 lbs. No complications; recovery normal.

Case II.—H., age 20, primipara; uterine pains began 8 p.m., January 20; membranes ruptured at 2 a.m.; child delivered at 3.15 a.m. Jan. 21. Position of child, first; female. Weight, 7 lbs. No complications.

Case III.—Mrs. B., age 23, multipara. Uterine pains began 12 p.m. Jan. 21. Membrane ruptured 3 a.m. Jan. 22. Child delivered at 6 a.m. Jan. 22; position of child, first; male. Weight, 10 lbs. Complications, cord around neck and child.

Case IV.—F., Age 15 years. Primipara; uterine pains began at 1 a.m. Jan. 24; membrane ruptured at 2 a.m. Jan. 24; male child delivered 7.30 a.m. Jan. 24. Breach presentation. Sacro-left-anterior; complications—cord around the leg and neck. Incomplete laceration of sphincter muscle. Laceration repaired with silk-worm gut. Dead baby. Patient made good recovery.

Case V.—C., age 22; primipara; uterine pains began 5 a.m. Feb. 8. Membranes ruptured 6.30 a.m. Feb. 8. Child delivered 7.30. Position of child, first. Female, weight, 7 lbs. No complications.

Case VI.—Mrs. McD., age 32; multipara; uterine pains began at 9 p.m. Feb. 12. Membranes ruptured at 11 a.m. Feb. 13; child delivered at 11.45; female; position of child, first; weight, 8 lbs. No complications.

Case VII.—S., age 48; primipara; uterine pains began at 7 a.m. Feb. 13. Membranes ruptured at 3 p.m. Child delivered at 11.45 p.m. Position of child, first. Complication, cord around the neck twice. Chloroform, forceps and low operation. Female; weight 7 lbs. Incomplete laceration, repaired with silk-worm gut.

Case VIII.—D., age 22; primipara; pains began at 6 a.m. Feb. 16; membranes ruptured at 11 p.m. Feb. 17; child delivered at 6 p.m. Feb. 17. Position of child, first. Cord around child's neck twice. Male; weight, 9 lbs. No complications.

Case IX.—— H., age 28; primipara; uterine pains began 11 p.m. Feb. 17; membranes ruptured at 4 a.m. Feb. 18. Child delivered 5.30 a.m. Female, weight, 8 lbs. No complications.

Case X.—— L., age 16; primipara; uterine pains began at 3 p.m.; membranes ruptured at 6 p.m.; child delivered at 7.15 p.m. Chloroform, forceps, low operation. Position of child, first. Female; weight, 7 lbs.

Case XI.—— E., age 28; primipara; uterine pains began at 1 p.m. Feb. 21; membranes ruptured at 6 a.m.; child delivered 3.30 p.m. Position of child, first; forceps, low operation; no chloroform, post partum hemorrhage severe, checked by ergot; Credé's method and hot saline douche; female; weight, 7 lbs.

Case XII.—Mrs. B., age 22; primipara; uterine pains began at 4 a.m. Feb. 24; membranes ruptured at 1.30 p.m. Feb. 25; child delivered 12.30 a.m. Feb. 26. Male; weight, $8\frac{1}{2}$ lbs.; cord around neck and arm.

Case XIII.—— M., age 25; primipara; uterine pains began at 12 p.m. Mar. 4; membranes ruptured at 8 a.m. Mar. 5; child delivered at 9.20 a.m. Position, first. Complications, cord around neck and arm, forceps; no chloroform. Incomplete laceration of perineum; repaired with silk-worm gut; male, weight, $7\frac{1}{2}$ lbs.

Case XIV.—— C., age 23; primipara; uterine pain began at 4 p.m. Mar. 12; membrane ruptured at 4 a.m. Mar. 13; child delivered 7.30 a.m. Mar. 13. Position, first; male, weight, 8 lbs.

Case XV.—— M., age 20; primipara; uterine pains began at 5 a.m. Membranes ruptured at 2.30 p.m. Mar. 16. Child delivered 3.15 p.m. Position, second. Complications, cord around body and neck; female; weight, 8 lbs.

Case XVI.—— D., age 18; primipara; uterine pains began at 8 a.m. Mar. 16. Membranes ruptured at 1 p.m. Mar. 16; child delivered at 3.30 p.m. Mar. 16. Position of child, first; female; weight, $8\frac{1}{2}$ lbs. No complications.

Case XVII.—— R., age 21; primipara; uterine pains began 11 p.m. Mar. 22; membranes ruptured at 2 a.m. Mar. 23; child delivered 6 a.m. Mar. 23. Forceps, low operation; no chloroform. Cord around neck; laceration through sphincter, repaired with silk-worm gut. Male; weight, 9 lbs.

Case XVIII.—— S., age 23; primipara; uterine pains began at 8 a.m. Mar. 27; membranes ruptured at 6 p.m. Mar. 27. Child delivered at 8 p.m. Position, first; cord around neck twice; male; weight, 8 lbs.

Case XIX.—Mrs., age 27; multipara; uterine pains began 3 p.m. Mar. 28; membranes ruptured at 5 p.m.; child delivered at

12 p.m. Mar. 28; position, first; cord around neck and arm; female; weight, 9 lbs.

Case XX.—Mrs. S., age 20; multipara; uterine pains began at 5 a.m. Mar. 29; membranes ruptured at 9 p.m.; child delivered at 11.30 p.m. Position, first; female; weight, 10 lbs.

Case XXI.—L., age 20; multipara; uterine pains began at 4 p.m. April 3; membranes ruptured at 1 a.m. April 4; child delivered at 1.45 a.m.; position, first. Cord around the neck; male; weight, 7 lbs.

Case XXII.—J., age 18; primipara; uterine pains began at 2 p.m. April 22; membranes ruptured at 7 a.m. April 23; child delivered at 7.45 a.m. Position, first. No complications; weight, $7\frac{1}{2}$ lbs; male.

Case XXIII.—F., age 18; primipara; uterine pains began 12 a.m. April 19; membranes ruptured 7 p.m.; April 9; child delivered at 8.45 p.m. Position, first; adherent placenta; female; weight, $6\frac{1}{2}$ lbs.

Case XXIV.—E., age 24; multipara; uterine pains began at 4 a.m. April 25; child delivered 11.45 a.m. April 25. Forceps, chloroform, high operation; face presentation with cord around the neck; dry labor; male; weight, 8 lbs.

Case XXV.—H., age 22; primipara; uterine pains began at 2 a.m. May 12; membranes ruptured 4 a.m. May 12; child delivered at 10.15 a.m. May 12. First position; chloroform, forceps delivery, low operation; cord around neck twice and around body once; male; weight 8 lbs.

Case XXVI.—B., age 30; primipara; puerperal eclampsia; was admitted to hospital at 10 p.m. April 8, in labor. Slight dilatation of os. Patient has had several convulsions; catheterised, and urine showed about 90 per cent. albumin. Steam bath given; also croton oil; veratrum viridi. The uterus was empty three and a half hours after admission; female; weight, 7 lbs.; patient died at 10 p.m. April 19, during a convulsion. Steam baths, croton oil, saline injections were used.

Case XXVII.—Mrs. H., age 39; multipara; uterine pains began at 1 a.m. May 14; membranes ruptured at 1 p.m. May 15; child delivered at 2.45 p.m.; chloroform, forceps, low operation; position, first; male; weight, 7 lbs. No complications.

Case XXVIII.—C., age 18; primipara; uterine pains began 9 p.m. May 18; membranes ruptured at 10 a.m. May 19; child delivered at 11.30 a.m. May 19; position, first; female; weight, $8\frac{1}{2}$ lbs.

Case XIX.—B., age 20; multipara; uterine pains began at 7 a.m. May 21; membranes ruptured at 1 p.m. May 22; child delivered at 2.15 p.m. First position; no complications; female; weight, $7\frac{1}{2}$ lbs.

Case XXX.—Mrs. T.; age 20; primipara; uterine pains began at 6 p.m. May 21; membranes ruptured at 6.15 p.m. Cord around child and neck four times. Position, second; female; weight, 6 lbs.

Case XXXI.—A., age 20; primipara; uterine pains began at 4 p.m. June 7; membranes ruptured at 12 m. Child delivered at 1.30 p.m. June 8. Position, first; complications, cord around neck and arm; chloroform, forceps; male; weight, 8 lbs.

Case XXXII.—Mrs. R., age 21; multipara; uterine pains began at 12 p.m. June 20; child delivered at 2.15 a.m. June 21; female; weight, 6½ lbs. Face presentations; roomy pelvis.

Case XXXIII.—N., age 18; primipara; uterine pains began at 1 p.m. May 26; membranes ruptured at 10 p.m. May 27; child delivered at 11.30 p.m. May 27. Position of child, second. Post partum hemorrhage; female; weight, 7½ lbs.

Case XXXIV.—J., age 17; uterine pains 9 p.m. June 27; primipara; membranes ruptured at 1 a.m. June 28; child delivered at 1.45 a.m. June 28. Position, first; cord around neck and arm; male; weight, 8 lbs.

Case XXXV.—S., age 21; primipara; uterine pains began 6 p.m. June 28; membrane ruptured at 1.30 a.m. June 29; child delivered at 2.15 a.m. Position, first; cord around neck; female; weight, 7½ lbs.

Case XXXVI.—Mrs. L., age 31; multipara; patient admitted to hospital when she was four and a half months pregnant; she was suffering from tuberculosis; extremely emaciated, and a cavity in either lung. She was delivered of a 3½ lb. baby, male, when 8 months pregnant. She died one day after confinement. Labor was normal.

Case XXXVII.—F., age 24; primipara; uterine pains began at 10 a.m. July 13; membranes ruptured at 12.30 p.m. July 14; child delivered at 2.30 p.m. July 14; position of child, second. Chloroform, forceps, low operation; female; weight, 8½ lbs.

Case XXXVIII.—M., age 16; primipara; uterine pains began at 1 a.m. July 16. Membranes ruptured at 6 a.m.; child delivered at 10 a.m. July 16; position, first; normal labor; male; weight, 9 lbs.

Case XXXIX.—A., age 17; primipara; uterine pains began at 1 a.m. July 17; membranes ruptured at 3 a.m. July 17; child delivered at 10.30 a.m. July 17; chloroform, forceps, low operation, adherent placenta; female; weight, 7½ lbs.

Case XL.—L., age 39; primipara; uterine pains began at 12 p.m. July 25; membranes ruptured at 2 a.m. July 27; child delivered at 1.30 p.m. July 27; chloroform, forceps, high

operation. Position, fourth; female; weight, 7 lbs. Incomplete laceration.

Case XLI.—M., age 17; primipara; uterine pains began at 12 m, July 28; membranes ruptured at 5 a.m.; child delivered at 4.45 a.m. July 29. Normal labor; position, first; male; weight, 8 lbs.

Case XLII.—A., age 17; primipara; uterine pains began 2 a.m. July 29; membranes ruptured at 4.30 a.m. July 29; child delivered at 12.45 p.m.; chloroform, forceps, low operation; cord around neck; male; weight, 8½ lbs.

Case XLIII.—Mrs. B., age 27; multipara; uterine pains began 9 p.m. Aug. 6. Membrane ruptured 4 a.m. Aug. 7; child delivered 9 a.m. Aug. 7; position, first; male; weight, 8 lbs.

Case XLIV.—J., age 22; primipara; uterine pains began at 6 p.m. Aug. 17; membranes ruptured 7 a.m. Aug. 18; child delivered 9 a.m., Aug. 18. Forceps delivery, low operation; position, third; male; weight, 7 lbs.

Case XLV.—Mrs. H., age 23; multipara; uterine pains began at 10 a.m. Aug. 23; child delivered 6.30 p.m. Aug. 23. Dry labor; position, second; forceps; female; weight, 8 lbs.

Case XLVI.—B., age 22; primipara; uterine pains began at 9 a.m. Aug. 25; membrane ruptured at 8 a.m. Aug. 25. Chloroform, forceps delivery. Position, first; female; weight, 7 lbs.

Case XLVII.—Mrs. A., age 23; multipara; uterine pains began at 10 a.m. Aug. 23; membranes ruptured at 3 p.m. Aug. 23; child delivered at 12.45 p.m. Aug. 26. This patient was brought to the hospital by Dr. C. who said that she had been in labor for three days, under the care of a midwife. Position transverse. Scapular, right posterior. Arm presented. Midwife had made several efforts to deliver by using traction on arm. Arm is black and in a gangrenous condition, from constriction of the os. I chloroformed patient, rendering the arm and vagina as aseptic as possible, and performed version. Arm was in a state of decomposition. Male; weight, 6 lbs.; patient left hospital in nine days. Would not remain, as she expressed it she was perfectly well.

Case XLVIII.—R., age 24; primipara; uterine pains began at 12 p.m. Sept. 2; membranes ruptured at 10 a.m. Sept. 3. Child delivered at 11.45 a.m. Sept. 3. Position of child, first; chloroform, forceps delivery, low operation. Female; weight, 8 lbs.

Case XLIX.—B., age 24; primipara; uterine pains began at 4 p.m. Sept. 6; membrane ruptured at 11.15 p.m. Sept. 6; child delivered at 12.15 p.m. Sept. 7. First position; chloroform, forceps, low operation; female; weight, 6½ lbs.

Case L.——— M., age 18; primipara; uterine pains at 5.45 p.m. Sept. 6; membranes ruptured at 11.30 p.m. Sept. 6. Child delivered at 1.00 a.m. Sept. 7. Position of child, first. Cord around neck; male; weight, 9 lbs.

Case LI.——— N., age 28; primipara; uterine pains began at 2.00 a.m. Sept. 7. Membrane ruptured at 8.30 p.m.; child delivered at 10.30 p.m. Chloroform, forceps delivery, low operation; female; weight, 8 lbs.

Case LII.——— H., age 25; primipara; uterine pains began at 8.00 a.m. Sept. 14; membranes ruptured at 6.00 p.m. Sept. 14; child delivered at 8.30 p.m. Sept. 14. First position; cord around the neck; male, weight, $7\frac{1}{2}$ lbs.

Case LIII.——— B., age 22; primipara; uterine pains began at 6 p.m. Sept. 23. Membranes ruptured at 11 p.m. Sept. 23. Child delivered at 12.45 a.m. Sept. 24. Position of child, first; female; weight, $7\frac{1}{2}$ lbs.

Case LIV.——— N., age 21; primipara; uterine pains began at 12 p.m. Sept. 30; membranes ruptured at 3.00 a.m. Oct. 1; child delivered at 6 a.m. Oct. 1. Complications, cord around the neck; male; weight, $7\frac{1}{2}$ lbs.

Case LV.——— E., age 18; primipara; uterine pains began at 9 p.m. Oct. 3; premature birth; five months; breach; male.

Case LVI.——— R., age 18; primipara; uterine pains began at 9 p.m. Oct. 19; membranes ruptured at 2 a.m. Oct. 19. Child delivered at 3.15 a.m. Chloroform, forceps, low operation; adherent placenta; incomplete laceration of perineum, repaired with silk-worm gut; position, first; female; weight, $7\frac{1}{2}$ pounds.

Case LVII.— Mrs. W., age 22; primipara; uterine pains began at 4 a.m. Oct. 21; child delivered at 2.30 a.m. Oct. 22; chloroform, forceps delivery; face presentation M.L.A.; female, weight, 8 lbs.

Case LVIII.——— M., age 32; primipara; uterine pains began at 4 a.m. Oct. 30; membranes ruptured at 7.00 a.m. Oct. 30. Child delivered at 3.30 p.m. First, position; chloroform, forceps; cord around the neck; female; weight, 8 lbs.

Case LIX.——— M., age 26; primipara; uterine pains began at 7 a.m. Oct. 9. Membrane ruptured at 11.30 p.m. Oct. 9; child delivered at 12.15 a.m. Oct. 10. Slight laceration of perineum, repaired with silk-worm gut; position, second; male; weight, 7 lbs.

Case LX.——— L., age 19; primipara; uterine pains began at 5 p.m. Nov. 6th; child delivered at 11 p.m. Nov. 7; position of child, first. Adherent placenta; female; weight, $6\frac{1}{2}$ lbs.

Case LXI.— Mrs. H., age 31; multipara; uterine pains began at 5 p.m. Nov. 13. Membranes ruptured at 1 a.m. Nov. 14.

Child delivered a 2.15 a.m. Nov. 14. Chloroform, forceps, low operation. Position, third; female; weight, 8 lbs.

Case LXII.—A., age 28; primipara; uterine pains began at 3 p.m. Nov. 18; membranes ruptured at 9.15 a.m. Nov. 19; child delivered at 10.15 a.m. Nov. 19. Position of child, first. Chloroform, forceps, low operation, cord around neck; female; weight, 11 lbs.

Case LXIII.—M., age 19; primipara; uterine pains began at 7.00 a.m. Nov. 21; membrane ruptured at 3.00 a.m. Nov. 22; child delivered at 1.15 Nov. 22. Position, second; chloroform, forceps; cord around the neck and arm. This case was a monstrosity; anacephalic; female; weight, $7\frac{1}{2}$ lbs.

Case LXIV.—M., age 31; primipara; uterine pains began at 12 M. Nov. 24. Membranes ruptured at 2.30 p.m. Nov. 24. Child delivered at 8.15 p.m. Cord around child and neck; male; weight, $7\frac{1}{2}$ lbs.

Case LXV.—K., age 24; primipara; uterine pains began at 11.00 p.m. Nov. 25; membrane ruptured at 11.30 a.m. Nov. 26; child delivered at 1.15, Nov. 26; position of child, first. Female; weight, $6\frac{1}{2}$ lbs.

Case LXVI.—L., age 23; primipara; uterine pains began at 10.00 p.m. Nov. 25; membranes ruptured at 2.00 p.m. Nov. 6. Child delivered at 5.45 p.m. Nov. 6; position of child first; complications, cord around the neck; male; weight, 8 lbs.

Case LXVII.—H., age 17; primipara; uterine pains began at 8 a.m. Dec. 6. Membrane ruptured at 6.30 p.m. Nov. 6; position, first; female; weight, 6 lbs.

Case LXVIII.—A., age 45; primipara; membrane ruptured Dec. 6; child delivered at 5.30 p.m., Dec. 7. Position of child, first; complication, cord around neck and arm. Incomplete laceration; female; weight, 7 lbs.

Case LXIX.—L., age 20; primipara; uterine pains began 5.00 p.m. Dec. 17. Membrane ruptured 1.00 a.m. Dec. 18; child delivered 3.00 a.m. Dec. 18; position, second. Chloroform, forceps; male; weight, $8\frac{1}{2}$ lbs.

Case LXX.—M., age 23; primipara; uterine pains began at 8.00 p.m. Dec. 23; Membrane ruptured at 1.30 a.m. Dec. 24; child delivered at 2.15 a.m. Dec. 24; position of child, first. Cord around neck and arm; female; weight, 7 lbs.

On service, Drs. J. Stoddart, P. J. Candee, C. J. Carr, Wm. J. O'Donnell; nurse, Miss B. Fitzgerald.

CLINICAL REPORTS.

Two Complicated Nervous Cases, with Treatment.

By ERNEST VINCENT, M. D., Texas.

Case I.—A.N.M.C., woman; American, aged 47. First saw this case October 1, 1900. Patient had been under treatment of various physicians for about five years. At time of my first visit, had been unable to walk for about seventeen months. On examination I found partial paralysis, from hips down, alarming cardiac weakness and dropsy of feet and legs, which were swollen to a remarkable size. In addition, the patient was suffering from two chronic leg ulcers, which had resisted all treatment. One was so deep as to partially expose the periosteum. The edges were jagged and the surrounding tissue soft. The two previous physicians in the case had told the husband that nothing further could be done, and to let patient have as much morphia as she wanted. I found that she was not only taking from four to six grains, hypodermatically, daily, but putting morphia in the ulcers to relieve the intensity of the pain. This aggravated the case greatly, increasing the nervous prostration, hysteria and the like.

I prescribed first elaterium and heart tonics which overcame the dropsical conditions. I treated the ulcers with the peroxide of hydrogen and bovine treatment, and they healed in thirty days. One week after taking charge of the case, I prescribed mercauro, ten drops t.i.d., gradually increasing dose to fifteen drops. When second bottle of mercauro was used, I prescribed arsenauro, watching case closely and gradually pressing dosage until the patient was saturated. At end of eight weeks after commencing treatment the patient could walk with the aid of crutches, which she was soon able to abandon. I discharged her cured, February, 1901, and she is still enjoying good health. When I was satisfied that I had reached the point of saturation, I gradually reduced dosage. I gave as high as twenty-five drops with no ill-effects. A peculiar feature in this case is, that I had no difficulty in breaking up the morphine habit. She never once asked for it. She has since said, "I did not want it. I took it for the pain and your first treatment stopped the pain."

Case II.—M. C., female; American, aged 48 years. First saw this case March, 1900. Patient was apparently insane. I found on inquiry that she had been suffering from nervous prostration for about four years, during the climacteric. She cried constantly, would tear her finger nails with her teeth until blood would flow. Was in the habit of running away from home, threatening suicide and the like. She had been under treatment of several physicians here, who at the time I was called in had informed the husband, a merchant, that her mind

was entirely gone and that the only thing to do was to send her to an asylum.

I must confess that the case on first acquaintance looked hopeless and I hesitated a day, before giving the husband my opinion in the case. During these twenty-four hours I watched patient closely and finally encouraged the hope of relief. Having had some success with arsenauero and mercauro, I resolved to put them to a test in this case. I commenced with mercauro, ten drops t.i.d., and before first bottle was used, had the satisfaction of seeing a great change in my patient. I by this time had her completely under control, could reason with her a little and she would obey me when she would no one else. She would come to me at regular times and I would give her the medicine myself. She still had her crying spells, but she ceased biting her nails and lost the wild, haunted expression she had had. Her appetite was remarkable, always eating, and this was a feature in the case that gave me some trouble. Instead of sitting up crying all night, natural short sleeps came to my aid. At the end of a month I used arsenauero, pressing the dosage with great care until full effect. The hysterical spells ceased, appetite became normal, mind much stronger, no more running away from home or threats of suicide. To make a long story short, I discharged case cured in ninety days.

Patient continued well for a year, when I was again called to her. Found her again despondent and mentally upset. Said she was "going to die," could see "death written on the wall," and the like. On inquiry I found that she had been examined two months previously by a physician, who told her it was necessary to treat the womb. He had curetted, and she had been suffering from uterine hemorrhages at intervals ever since. The excessive loss of blood had weakened and frightened her. I ordered absolute rest with good nursing, prescribed arsenauero again, and in a month she was quite well.

Treatment of Obstinate Cystitis.

By GEORGE W. HOPKINS, M. D., Cleveland, Ohio.

John C., age 31, occupation, patrolman. Following exposure, patient experienced bladder symptoms as follows: frequent urination, tenesmus, hypogastric pain and temperature of 101.4° . The urine was scanty, turbid and loaded with mucus.

Diagnosis.—Acute cystitis. Treatment consisted of rest in bed, restricted diet, anodynes for the tenesmus, diluent and alkaline drinks. The acute symptoms promptly subsided, but the urine continued abnormal despite the general measures employed and the internal administration of urinary antiseptics. Irrigation with boric acid solutions of various strength proved unsatisfactory, as did also solutions of potassium permanganate and silver nitrate, similarly applied. A 20 per cent. solution of

glyco-thymoline was substituted for irrigation, and the improvement was marked and continuous until recovery was perfect.

Harry R., age 43; occupation, bookkeeper. Had a history of bladder trouble of several years duration. His urine was blood-tinged and loaded with mucus. Microscopic examination revealed an abundance of ammonia, magnesium phosphates, numerous disintegrating pus corpuscles, blood corpuscles and blood shadows.

Repeated examination with the sound gave negative results, but a skiograph taken with a high vacuum hard tube revealed a small calculus which had persistently evaded the sound in previous examinations. Lithotomy was performed and the calculus removed but the urine failed to return to normal. Irrigation in turn with boric acid, potassium permanganate and silver nitrate solutions gave unsatisfactory results. Glyco-thymoline irrigations proved satisfactory from the start and recovery was ultimately perfect.

William L., age 55; occupation, saloonkeeper. Had a history of repeated attacks of gonorrhea which were never appropriately treated. Urine was voided with great difficulty, at frequent intervals and loaded with mucus. Reaction was alkaline and the microscope revealed an abundance of amorphous phosphates of calcium and magnesium, flat epithelial cells, disintegrating pus corpuscles and indigo crystals. Examination confirmed diagnosis of chronic cystitis due to urethral stricture and hypertrophied prostate.

Catelectrolysis by the slow method removed the stricture and Bottini's operation relieved the enlarged prostate, but the urine failed to clear up as desired. The cystoscope showed marked changes in the bladder walls, but catheterisation of the ureters yielded negative results. Appropriate urinary antiseptics were administered internally and silver nitrate solutions by vesical irrigation with only slight improvement. Irrigation with 20 per cent. solutions of glyco-thymoline gave early and continuous improvement until recovery was perfect.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

Section on Pathology, January 21, 1902.

REPORTED BY IRVING P. LYON, M. D., Secretary.

The regular monthly meeting of the Buffalo Academy of Medicine was held in the Academy rooms, Public Library Building, Tuesday, January 21, 1902, at 8.30 p.m., Dr. GROVER W. WENDE, chairman, presiding.

Attendance, 22. The minutes of the previous meeting were read and approved.

Dr. HERMAN E. HAYD presented and discussed the following pathological specimens: (1) hypertrophied prostate, middle lobe—removed by perineal section; (2) acutely inflamed appendix (appendicitis); (3) normal appendix, containing at its tip a muskmellon seed.

Dr. G. FRANK LYDSTON, of Chicago, upon the invitation of the Academy, discussed the operative treatment of prostatic hypertrophy. Dr. Lydston declared his disapproval of the Bottini operation, as compared with radical measures, *i. e.*, prostatectomy. The Bottini operation is merely palliative, and its general employment is calculated to retard the legitimate development by radical prostatic surgery. The general practitioner should realise that prostatic hypertrophy is not strictly a disease of old men, but merely reaches its full development with symptoms demanding treatment in those of advanced years. The disease develops gradually throughout adult life and should not be permitted by the neglect or ignorance of the physician to reach a stage so advanced as to cause serious bladder symptoms. Let the diagnosis be made early and give the surgeon the call at once and the result of radical prostatic surgery will be comparable to those obtained in other early operations. The general practitioner must be educated to this view of prostatic disease.

In reply to questions from Dr. Lyon, Dr. Hayd stated that the patient whose appendix contained a muskmellon seed had presented none of the usual symptoms of appendicitis. Loss of weight and occasional pain in the abdomen were the only symptoms and seemed to justify an exploratory operation.

The first paper of the evening was read by Dr. G. FRANK LYDSTON, of Chicago, on

THE RELATION OF EVOLUTION TO INFECTION, WITH SPECIAL
REFERENCE TO VENEREAL DISEASES,

and presented in detail Dr. Lydston's well known views on the variability of pathogenic organisms and their effects, explained by their tendency to revert toward a less highly specialised form (atavism), a principle well understood by students of evolution. The general rule governing such variation may be stated in the formula: The tendency to variation of any species is in inverse ratio to its degree of specialisation by evolution. Microorgan-

isms, being among the lowest and simplest forms of life, are little specialised, relatively, and are consequently subject to wide variations in their pathogenicity. The gonococcus is not always the same organism in its capacity to cause a specific urethritis. Indeed, the gonococcus may be found in the urethra without its having ever excited any inflammatory reaction; in other words, "the gonococcus is not always the gonococcus." The same fact is true of the diphtheria bacillus, the diplococcus of pneumonia, and numerous if not all other pathogenic microorganisms.

Every disease germ is subject to modification in its disease-producing capacity by its environment, by the suitability of the soil upon which it grows, whether in test-tube culture or in the tissue-soil of its victim. This tissue-soil in any individual may be so unfavorable, by reason of a natural immunity or resistance possessed by him, as to render the germ relatively or absolutely harmless.

We have to recognise, then, in the power of germs to produce disease, the two factors of the variability of germ-species and the resistance offered to them by unfavorable tissue-soil in the individual. The interrelation by these two factors determines the degree of infection.

This variability in the capacity of germ species to cause disease has not yet been grasped by the medical profession, though bacteriologists and pathologists are beginning to reckon with it. There is nothing novel or iconoclastic in accepting this doctrine. It is simply the application of the principles of evolution and involution to germs, and to germs these principles apply with particular force because germs are so little specialised and therefore so poorly fixed species.

Dr. Lydston's paper was discussed and its general conclusions endorsed by Drs. Park, Stockton, Blaauw, Gaylord and Dowd. A vote of thanks was passed tendering to Dr. Lydston an expression of the appreciation of the Academy for his able address.

The second paper of the meeting was read by Dr. J. HENRY DOWD, entitled,

NEW TISSUE FORMATION, ITS EARLY DETECTION AND COMPLETE OBLITERATION.

The meeting adjourned at 11.20 p.m.

PROGRESS IN MEDICAL SCIENCE.

Genito - Urinary and Syphilitic Diseases.

CONDUCTED BY BYRON H. DAGGETT, M.D., Buffalo, N. Y.

CLINICAL NOTES ON GLEET.

RAROGLI (*New York Medical Journal*, January 4 and 18, 1902,) says that the name gleet is a popular term, but the different treatises on genito-urinary disease name this affection chronic urethritis.

This disease is a complex of different conditions. It is a chronic inflammatory condition, located in some part of the canal or its adnexa. From the gonorrheal infection to the formation of stricture there is a continuation of disorders and of alterations of tissues, due to the derangement of nutrition resulting from the infection. If a man has a stricture twenty years after having acquired a gonorrhea, it would be called an evolution of the gonorrheal process. General gonorrheal infection may occur, but this condition is very rare. It remains limited in most cases to the mucous membrane of the genitals or to the organs in direct relation.

The gonococci may remain dormant for a long time, in Littre's glands, in Morgagni's crypts, Cowper's glands, the prostatic ducts, and the seminal vesicles, without disclosing their presence. They may be aroused from this condition of latency by hyperemia of the parts caused by alcohol or venery. In this case there is a fresh outbreak, simulating a new invasion. This is autoinfection. In most cases, after a few years, the germ is dead so that infection does not occur.

Symptomatology.--A scanty, whitish fluid appears in the morning; shreds are found in the urine, or it may be turbid.

Subjective Symptoms.--Occasionally a patient complains of a burning sensation in the act of micturition, or of pain from ejaculation. Some complain of transient pains in the lumbar and genital regions, others of fatigue. Others suffer from a morbid nervous superexcitability extending over different nerve territories, constituting sexual neurasthenia. Chronic posterior urethritis causes nervousness, loss of flesh, nocturnal emissions, sleeplessness, mental depression, incomplete erections, retarded ejaculation and impotence or premature ejaculation. Often the cause of neurasthenia is revealed by the passage of a sound.

Physical Examination.—The morning drop must be microscopically examined, although the result does not explain the reason of the stubbornness of the affection. We find permanent epithelium, mucin and uninuclear leucocytes. At times a few cocci are found, at other times they are abundant. The gonococci are seldom found in the urine or in the discharge. Finger says that the stubbornness of the discharge is owing to the affection of the prostate. The prostate should be massaged and the secretion examined for gonococci, which, if present, indicate infectiveness.

Milking of the prostate does not generally bring forth secretion and examination of the secretion does not often reveal anything abnormal, yet the urethral drop is always suspicious.

There is no doubt that gleet has its seat in the posterior urethra and continues for years in a state of chronic hyperplastic inflammation, producing sclerosis and shrinking of the tissues, forming stricture.

Littre's glands lie in the membranous portion of the urethra; they are hiding places for the gonococci and foci of infection. Epithelial débris blocks the excretory ducts of the urticles and glands and prevent the access of the remedy to the interior. These plugs, escaping from the excretory ducts float in the urine and form the comma-like filaments of Fürbinger. In every case of gleet the prostate should be examined through the urethra and rectum. When the sound is removed a little drop of milky fluid follows, which shows small leucocytes, large epithelial cells, amorphous uric salts of decomposed urine, which cause maceration, infiltration and granulation. This condition will produce stricture after a time. Chronic gonorrheal inflammation produces hypertrophy of the connective tissue and changes in the epithelium. In acute cases the cells degenerate; in chronic cases they proliferate and become hypertrophied. These changes modify the elasticity of the urethra, causing functional disturbance and prevent the squeezing out of any drop of urine. This residual urine continues the inflammatory process.

Pathology.—When the gonococcus lodges on the mucous membrane it develops, proliferates and causes a reaction with all the symptoms of inflammation. This constitutes acute gonorrhea. The urethral mucous membrane is a fertile soil for their development. They infect the surface by continuity and by contiguity, enter the glands in the lacunæ and the organs connected with the affected mucosa.

It appears that the gonococci remain near the surface. Brunner says that the gonococci quickly penetrate the epithelium and collect in great numbers in the lymph spaces of the upper connective tissue layer. Halstead says that although large numbers of gonococci penetrate the tissues, yet their development takes place near the surface of the mucous membrane.

Tuton, Jadasson, Fabry, Dinkler and Rosinsky claim that gonococci multiply on the surface of the pavement cells and only penetrate the superficial layers of the mucosa. They are found in the cylindrical epithelium, near glands and in the excretory ducts and glands. They only accidentally affect connective tissue. Several investigators have found these germs in abscesses and in edema of the prepuce. Gonococci persistently abide upon mucous membrane in a latent state and produce chronic manifestations. They lose virulence by repeated reproductions on the same ground and only produce chronic manifestations, but irritation or emigration to a new field will arouse their pristine vigor.

The urethroscope shows the mucous membrane dark red, covered with small red points which easily bleed. The infiltrated mucosa protrudes into the urethroscope. White patches may be seen, due to thickening of the epithelial layer. Sometimes nodules, the size of a pin head, are found. They are due to occlusion and cysts of the lacunæ glands. Macroscopical examination does not show tissue change of chronic inflammation. Microscopical examination shows small cell infiltration and connective tissue proliferation in the subepithelial structure (Finger). Such infiltration is usually limited to patches of different sizes in the neighborhood of the lacunæ and glands, and this condition causes the granular appearance found with the urethroscope. Chronic urethritis preferably attacks the bulb and the junction of the membranous and prostatic divisions of the canal. The evolution of this process produces fibrous or cicatricial tissue which, becoming sclerotic, forms organic stricture. Infiltration is the first stage of the formation of stricture. Examination of the prostate, seminal vesicles and Cowper's glands should always be made for diagnosis and treatment of gleet.

Prognosis.—An old gleet, complicated with chronic prostatitis can be much improved by well-directed treatment, but complete recovery in some cases is very difficult to obtain. Much patience is required on both sides. The patient must observe

strict regimen, must avoid liquor and venery. The prognosis is more favorable in recent cases and in cases uncomplicated with stricture and nervous symptoms.

Treatment.—Treatment requires good judgment in the selection of the means to be employed. Internal treatment must be associated with local application. Urinary antiseptics, such as salol, salicylates, eucalyptus, sandal oil, boracic acid, the benzoates and urotropin. Bromides and opiates for relieving pain and neurasthenic conditions. Tonics, such as the hypophosphites, iron and strychnia. Local treatment is the most reliable. Irrigate the urethra, with or without the catheter. The recurrent catheter is the most useful in chronic posterior urethritis. Lavage alone seldom cures this condition. Instillation of silver and other remedies are often useful.

The Urethroscope.—The affected surface is brought into view by means of the endoscope and cotton is wrapped about the end of the rod, saturated with a 3, 5 or 6 per cent. solution of nitrate of silver and applied to the diseased membrane, and the surplus is taken up by a dry tampon. (The rods and endoscope made by the Electro Surgical Instrument Co., of Rochester, are well adapted for this work.—Abstractor.) 3 to 5 per cent. solution of copper sulphate or trichloroacetic acid are no better than the silver. If the lesions are superficial, like erosions or granulations, a few applications will cure them. Begin treatment with lavage and apply through the endoscope a few applications of a 5 per cent. solution of silver protein or nitrate to the granulations will heal them in a short time. If deep infiltrations are present, although the erosions heal, the infiltrations remain and will run a progressive course and end in stricture.

Mechanical Treatment.—Reabsorption of the infiltrated patches is promoted by pressure with sounds and dilatation; with the urethrometer measure the calibre of the urethra and find the points of a forming stenosis and narrowing of the urethral diameter. Sounds should be introduced once a week and left in for five minutes. Medicinal remedies are also applied in various ways to the stenotic points to hasten reabsorption. Application of unguents have not given expected results, although this treatment seems rational. Application of electrolysis with a current of from 12 to 20 milliampères is a very satisfactory procedure. Otis, Oberlander and Kollman have improved these instruments until they are about perfect.

The dilatation must be carefully done under a 2 per cent.

solution of cocaine or eucaine. The endoscope shows as a result of dilatation small, longitudinal fissures in the infiltrated surface, which promptly and completely heal without a scar. This procedure begets rapid reabsorption of the infiltration. Dilate once in ten days to two weeks. Complete the treatment with the steel sound.

MERCURY—ITS ACTION UPON THE SYSTEM.

PORTER, W. H. (*Reprint from the Post Graduate*) claims that mercurials act upon the hepatic function in three successive, distinctive stages: (1) as a stimulant, (2) greatly increasing the flow of bile, (3) greatly decreasing the flow of bile.

There is no satisfactory chemical or physiological explanation of the action of this drug, yet its beneficial effects cannot be disputed. It is an inorganic substance, hence is not decomposed within the animal organism and does not form other compounds therein. Calomel is practically insoluble and comparatively nonirritating, yet it is a most active cathartic. Being nonirritating to the intestinal mucous membrane, it passes along the alimentary tract, and is absorbed into the entero-hepatic circulation and is carried up to the liver, where it acts as an irritant to the hepatic cells, which by their secretive action and purpose protect the system against foreign invasion, pick up the little particles of calomel from the blood and pass them along into the capillary bile ducts.

If the amount of calomel is small, it stimulates the cells to a little greater activity and the secretion is converted into the salts of the bile acids. This is physiological action. Larger quantities of calomel augment the amount of the bile acids and pigment, more than can be neutralised by the alkaline phosphates and carbonates and the excess causes cholagogue action. This action is temporary, as it soon exhausts the protoplasmic chemical activity of the cells. Thus, mercurials are stimulating, cholagogue and depressant.

The hypersecretion of the bile acids and its effect upon the intestinal tract is a pathological process. By means of this abnormal functional activity of the gland, nature rids the system of offending substances. In this way microbic ptomaine or toxic poison is eliminated or destroyed.

In like manner it aids as an antisyphilitic remedy without assuming that it is a direct chemical antidote to the syphilitic poison. We have no definite knowledge of the exact character

of this poison. The mercurials augment the glandular and nutritive activity of the system and raise the physiological tone to such a degree that the system rids itself of toxic material.

Mercurials stimulate the hepatic cells; produce cholagogue action; are sedative by reason of over stimulation and secretion. They are alterative, antiphlogistic, antisyphilitic and diuretic. Ptyalism is due to the inactivity of the hepatic cells, the salivary glands attempting to do what should have been done by the hepatic cells.

SELECTION.

The Shock of Intra-abdominal Operations—its Etiology, Prophylaxis and Treatment.¹

By LEWIS S. McMURTRY, A. M., M. D., Louisville, Ky.

(Proceedings of the Philadelphia County Medical Society, December, 1901.)

BARRING exceptional and complicated cases, the causes of death after intraabdominal operations are three: shock, hemorrhage and septic infection. The discovery of the relations of microorganisms to septic processes and the perfection of the modern aseptic surgical technique have practically overcome the last of these, so that in the hands of the modern abdominal surgeon it may be eliminated from the list. With the care given to hemostasis, in which the Trendelenburg position is a valuable aid, immediate and post-operative hemorrhage should be a rare cause of death. At any rate our knowledge of its serious import and our means for its control have reached a degree of accuracy and efficiency near to perfection. It is quite different, however, in relation to shock, which is still a potent factor of mortality, and regarding the nature, etiology, and pathology, of which we know little more now than when the subject was treated by Travers and Pirogoff. Clinical observation and experimental investigation have yielded only meager results in adding to our knowledge of the nature and mechanism of traumatic shock. This is a common complication of wounds and injuries, and must remain a subject of solicitous interest to the general and special surgeon until its nature, etiology, prevention, and therapy are more clearly comprehended.

Shock is an inhibition of the vital functions, marked by vasomotor paralysis. Its manifestations are through the nervous

1. Read by invitation before the Philadelphia County Medical Society, December 18, 1901.

system, and these relate especially to depressed and impaired action of the circulatory organs. It is evidently a neurosis, in which there is altered function of the nerve centers, with profound disturbance in the sympathetic nervous system. It varies in intensity from an evanescent and slight disturbance of nervous equilibrium to profound general depression and rapid dissolution. It is characterised by muscular relaxation, diminished cardiac force, lessened arterial tension, feeble respiration, arrest of glandular activity, and mental lethargy often verging into delirium. The symptoms of shock, when pronounced, present a striking clinical picture. The advent may be sudden, and the symptoms are those of most profound general depression. The pulse becomes rapid and feeble, the surface of the body is pallid and bathed in cold perspiration, the lips bloodless, the features pinched, and eyelids drooping. The respiration is feeble and irregular, and the temperature subnormal. The special senses are blunted, the mind lethargic and verging into unconsciousness. The secretory and excretory functions are in abeyance. These symptoms in the aggregate are usually of short duration. If they become more intense they speedily end in death; if the recuperative powers of the system triumph, the pulse and respiration improve, the heart acts with improved force and rhythm, the color returns to the skin, normal temperature is restored, the features regain normal appearance, and the mind resumes its sway.

In abdominal and pelvic surgery shock occurs during or immediately after operation. The terms secondary and delayed shock have tended to confusion in the study of this subject. Undoubtedly hemorrhage, acute sepsis, and fat embolism have been misinterpreted in this connection. These complications of wounds and injuries were formerly classified as delayed or secondary shock, terms most misleading. Modern surgeons no longer recognise such conditions as delayed or secondary shock.

In abdominal operations it is important to differentiate shock from chloroform asphyxia. In the latter condition the depression is sudden, with no warning symptoms; the pupils dilate; the respirations become irregular and cease; the pulse irregular, then ceases to beat at the wrist. When the anesthetic is discontinued, the patient suspended, an artificial respiration is induced, the pulse returns, and the alarming symptoms disappear. The less rapid accession of alarming symptoms and the lack of

response to resuscitative treatment in shock will afford a basis of differentiation.

Sudden collapse from hemorrhage must also be differentiated from the nervous depression of shock. As a rule, the depression known as shock gradually appears during the late steps of the operation; the collapse of hemorrhage is immediate, and an expert anesthetiser will readily discriminate between the two conditions. The acute anemia of concealed and persistent hemorrhage is less readily differentiated from shock than the active hemorrhage just mentioned. Immediately after operation, when the abdomen has been closed and the patient placed in bed, hemorrhage will present many symptoms in common with shock. Differentiation here is most difficult. Indeed, many deaths resulting from concealed hemorrhage are attributed to shock. The pulse of hemorrhage is characterised by increasing frequency and diminishing force and volume. The face in hemorrhage has an anxious expression, but intelligent, the respiration is quick and sighing, and there is restlessness. The most difficult cases for diagnosis are those in which shock and hemorrhage jointly produce the depression. Should the symptoms of shock recur after the patient has partially rallied the existence of hemorrhage is almost assured. Such cases are illustrations of so-called secondary shock.

Acute septic infection may be confused with shock. These cases were quite common in abdominal surgery before the era of asepsis and during the period of imperfect asepsis. With a subnormal surface temperature the thermometer in the rectum or vagina will record a marked elevation above normal. The existence of conditions of possible sepsis will aid in the differentiation.

Emboli of various kinds may produce symptoms analogous to shock. Warren has called attention to the emboli of fat which occur in acute suppurations in fatty tissues, and which accumulate in the lungs, producing alarming symptoms and death.

The post-mortem disclosures in cases of death from shock, aside from the evidences of marked vascular disturbance, are purely negative. Shock must be regarded as a neurosis from a pathological standpoint.

In the etiology of shock individual susceptibility plays an important part. The resistance to injury in the animal creation is in proportion to the development of the nervous system. The

lowest in the scale of development possesses the greatest resistance to injuries of all kinds. A highly endowed nervous organisation, whether acquired or hereditary, constitutes a predisposition to shock. The health of the individual is an important factor in the etiology of shock. Debilitating diseases, insufficient and indifferent food, dissipated habits, care and mental anxiety predispose to shock from slight injuries. In constitutions enfeebled by disease, especially when complicated by hemorrhage, operation will produce depression readily. This is especially manifest in cases of carcinoma. Repeated and long-continued hemorrhage likewise predisposes to shock, as illustrated in cases of uterine fibromata.

Dr. George W. Crile, of Cleveland, in a series of experimental investigations, has made a valuable contribution to the etiology of shock in abdominal operations.¹ These investigations are confirmed by practical experience. He found in a series of experiments upon dogs that shock is produced by opening the peritoneum; that simple exposure of the peritoneum to the atmosphere produced shock, the degree of shock varying inversely with the temperature of the air; the duration of operation and exposure was found to be an important factor of shock; manipulation of the peritoneum and enclosed organs induced symptoms of shock, increasing in intensity as the manipulation extended from the pelvis to the diaphragm; the same symptoms followed the disturbance of local splanchnic vasomotor areas and pressure upon the splanchnic veins, especially upon the vena cava.

These observations were made by means of the graphic method, whereby the alterations of the blood-pressure were recorded. Every experiment in the splanchnic area gave evidence that the dilatation of the vessels controlled by the splanchnic nerves was accompanied, *pari passu*, with the decline of pressure in the central and arterial circulatory apparatus. These nerves are vein nerves, and shock in operation on the splanchnic area is largely caused by the local disturbance of the vasomotor mechanism. The large splanchnic veins are engorged with blood in shock, and this we know is the result of impaired force of the heart's action; while the vasomotor mechanism plays an important rôle in shock, Crile's experiments show that this is not the whole cause. Clamping the thoracic aorta and splanchnic arteries did

¹ The *American Gynecological and Obstetrical Journal* for March, 1898.

not prevent the symptoms and results of shock from injury to the intestines. It was also shown by Crile's observations that shock follows bloodless operations, thus disproving the assertion of some able clinicians that shock is but another name for hemorrhage. This important note, however, was confirmed by all experiments; "the less the insult to the tissue, the less the shock; the less the hemorrhage, the lighter the shock." The experimental investigations of Crile demonstrated throughout that hemorrhage, rude manipulation, peritoneal exposure, prolonged anesthesia, and loss of body heat are the most potent factors of shock after abdominal operations. These disclosures have long been recognised as clinical facts, and are confirmed by daily practical experience.

The prophylactic treatment of shock is most important. In all abdominal operations it should begin with the preparation of the patient for operation. While purgation, light diet, and increased elimination are essential features of preparatory treatment, such treatment should be very materially modified in the preparation of exhausted and debilitated patients as a preventive of shock. Active purgation and fasting predispose to shock. In patients exhausted by hemorrhage or debilitated by disease purgation should be omitted, and systematic feeding with bland concentrated liquid food up to within a few hours of the operation should be observed.

It was formerly quite the routine practice with many surgeons to administer morphine or alcohol, or both combined, preparatory to operation, in order to prevent shock. There is little either in experimental deduction or clinical experience to commend this practice. Crile found that preliminary administration of both these agents did not act favorably upon the phenomena of shock. Alcohol is still used for this purpose by some surgeons, being administered in the form of brandy or whiskey, diluted with water by enema prior to operation. While increasing the heart's force and vigor for a limited time, physiological investigation has shown that this period is succeeded by a period of depression which is conducive to shock. My own experience with this agent as a preventive of shock has not impressed me favorably. Opium is a depressor of vital power, and its physiological effects upon the nervous system are in the direction of promoting and increasing shock. These facts are recognised clinically by abdominal surgeons. Normal saline solution by enema preparatory to operation is an agent of positive value.

By increasing the venous pressure the output of the heart is increased and the contractions are stronger.

Both clinical experience and physiological experimentation attest the value of strychnia as a cardiac and vascular tonic, and therefore it is deservedly esteemed in practice as an agent of positive value in the prevention of shock. It should be administered in doses of 1-40 grain every six or eight hours for several days prior to operation in all cases wherein shock is apprehended, and 1-30 grain should be given hypodermatically immediately preceding anesthesia.

From what has already been stated as to the reduction of body temperature in the mechanism of shock, it is apparent that the temperature of the operating-room and the conserving of body heat by warm clothing should receive consideration in the prevention of shock. The temperature of the operating-room should be 80° F. the patient should be well wrapped in blankets, and bags of hot water placed within the folds of the blankets alongside the trunk and lower extremities. Contact of the skin with glass, tin, and other conductors of heat should be avoided.

It would be difficult to exaggerate the importance of care and skill in the administration of anesthetics in relation to the prophylaxis of shock. Sulphuric ether is not so pronounced in its depressing effects upon the heart and vasomotor system as chloroform, and requires less care in its administration. Not only the amount, but the method of administering anesthetics is important. The least quantity that will produce and maintain moderate surgical anesthesia, and the withdrawal of the drug at the earliest practicable moment in the final steps of the operation are essential points to be observed. Profound or prolonged anesthesia is per se a potent factor of shock.

Of all the causative factors of shock no one is so pronounced and potent as hemorrhage. In patients debilitated by disease and reduced by hemorrhage, it is wonderful how slight a hemorrhage during operation will depress the patient's vitality. The effect upon the heart is immediate. It is this clinical fact which has led some able surgeons to declare that shock is but another name for hemorrhage. From the beginning to the end of the operative procedure this fact should be constantly in the operator's mind. All active bleeding, both arterial and venous, should be arrested by the application of clamp forceps. While manipulating within the abdomen and deep pelvis, mechanical interference with large venous trunks should be avoided. Ooz-

ing surfaces should be packed with gauze pads wrung out of hot water, and constant attention devoted throughout the operation to arrest bleeding.

The experiments of Crile have demonstrated that a marked degree of shock is produced simply by opening the peritoneum and exposing the surface of that membrane to the atmosphere. Hence the shortest incision compatible with easy access and manipulation should be preferred. During the progress of the operation the visceral surface of the peritoneum should be protected with hot gauze pads, which will exclude atmospheric contact, preserve body-heat, and prevent surface evaporation.

The insult to the tissues, otherwise rude manipulation, is a potent and common cause of shock in abdominal operations. I know no one of the causes of shock which is so constantly disregarded as this. In no class of operations is a gentle touch more essential. Even when force must be applied, as in the separation of adhesions and enucleation of tumors, that force should be applied with due regard to the sensitive natures of the structures involved. Rude manipulation always shocks the patient, and much handling and stretching and twisting of structures covered by peritoneum can be avoided by care and manipulative skill—a skill to be cultivated by every surgeon who does this class of operations.

The duration of an operation bears a most conspicuous causative relation to shock. Long-continued anesthesia, even carefully administered, of itself will produce shock. The element of time in relation to anesthesia, to the exposed field and to manipulative irritation, is of the greatest moment in this connection. Hence, the mental concentration of the operator,—his command of technical detail and manipulative skill,—must play an important rôle in the prevention of shock.

Treatment.—The symptomatic indications for treatment in shock are to facilitate the cerebral circulation by position, using the Trendelenburg position on the operating-table and elevating the foot of the bed after operation. The heart must be strengthened by strychnine administered hypodermatically. Intravenous infusion of normal saline solution is indicated for reasons already given. The application of heat to the surface and the conservation of body-heat in every possible way are essential parts of treatment. Atropin is an agent of undoubted value in strengthening the heart. As the respiration is shallow and the blood insufficiently furnished with oxygen, artificial respiration and

the administration of oxygen gas are indicated. Diffusible stimulants per enema (brandy or whiskey, f ij; warm water, $\bar{\text{3iv.}}$) should be administered. In the effort to meet the issues presented, there is a constant temptation to repeat medicines in large doses too frequently.

ABSTRACT.

The Prevention of Ophthalmia Neonatorum.

DR. LUCIEN HOWE, of Buffalo, (*Philadelphia Med. Jour.*, January 18, 1902), in an article on the prevention of ophthalmia neonatorum, urges the enactment of laws which will make it compulsory upon the practitioner to adopt some form of prophylaxis against this disease, which is responsible for so many cases of blindness. He cites statistics by Kostling, showing that in 17,000 births where no prophylactic treatment had been employed some trace of ophthalmia developed in over 9 per cent., whereas in 24,000 children treated by the Credé method the number who developed the disease was only one-half of 1 per cent. The Credé method, however, has the disadvantage of always producing some pain and usually more or less conjunctivitis, while in a few instances it has given rise to corneal ulceration. According to the statistics of Piotrowski, in 1,030 children treated with a strong solution of boric acid and a 10 per cent. solution of protargol not a single case of ophthalmia occurred, while slight catarrhal conjunctivitis was observed in only $\frac{1}{2}$ per cent. Aside from the numerous favorable reports on the value of protargol as a prophylactic against this affection by European authors, the drug is preferred for this purpose by many ophthalmologists in this country, including Drs. Alt, Peck, Cheney, Fox, Hotz, Zimmermann, Converse and Todd.

In commenting upon Dr. Howe's paper, the *Philadelphia Medical Journal* remarks editorially:

If we cannot reach the *fons et origo* of ophthalmia neonatorum, we can at least save the offspring from a life of darkness, and protect the community from a source of burden and expense. That this can to an enormous extent be accomplished by prophylactic instillation need hardly be repeated, and its negligence constitutes a sin of omission that deserves commensurate punishment. The enactment of such a law is feasible, its interpretation obvious, and its enforcement not difficult, provided the accoucheur receives the intelligent support of an intelligently instructed community.

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The State Medical Society in 1902.

THE recent annual meeting—the ninety-sixth—of the Medical Society of the State of New York, was a splendid gathering of representative physicians from all parts of the State. The attendance was unusually large, the total registration being 537, and among the visiting members from other states were men of distinction, who contributed in large measure to the scientific and social features of the meeting.

The president, Dr. Henry L. Elsner, of Syracuse, distinguished his administration by conducting the affairs of the society for a year in such a manner that its traditions for usefulness have been revived, its scientific standing strengthened and its esprit de corps greatly increased. During his year of service he visited many of the county societies throughout the state, reading papers before them and taking an active part in their proceedings. This served to stimulate interest not only in the local bodies, but in the parent or state society, and good results were witnessed at the Albany meeting. It requires a goodly expenditure of time and money to do such splendid work, and the thanks of the profession is due to President Elsner for the liberal policy which he inaugurated in the direction named.

He also organised and conducted a successful semiannual meeting at New York in October, 1901, that was a most profitable innovation which deserves to be repeated. Through his considerate action much has been done in the year to develop a feeling of good fellowship among the profession of the entire state. Members of rival societies have felt and acknowledged this fact and have accorded generous praise for his efforts in this direction. More than all, he has laid the foundation for

an ultimate union of the profession in a single state society, which, if not accomplished, will be no fault of his. His suggestion is set forth in his inaugural address as follows:

I recommend that the Medical Society of the State of New York appoint a committee of five, to confer with an equal number representing the New York State Medical Association, for the purpose of formulating a plan which shall have for its object the reorganisation of the regular profession of this state, which body shall be in affiliation with the American Medical Association, and that the committee report the result of its labors at the next meeting of the Medical Society of the State of New York.

In the event of the failure of the New York State Medical Association to appoint such a committee, or if the committees should fail to agree upon a plan of reorganisation, the committee appointed by the Medical Society of the State of New York shall have full power, if it deems it expedient, to represent this society before the American Medical Association, and the secretary of this society shall, if the majority of the committee desires, provide the individual members with credentials of delegates to the American Medical Association.

Surely, no physician can take exception to the plan Dr. Elsner has presented, and it ought to meet with cordial approbation on all sides. The society authorised the appointment of the committee as recommended, providing that the president himself should head it. The committee, as subsequently announced, is as follows: Henry L. Elsner, Abraham Jacobi, Albert Vander Veer, A. M. Phelps and George Ryerson Fowler. The personnel of the committee is such as to justify hopefulness of its success, and if equally prominent and representative men are appointed by the other body it will be a cause for thankfulness.

The program, prepared under the direction of the business committee, of which Dr. Nathan Jacobson was chairman, had been made up with great care and presented a large group of interestingly instructive papers. The symposia upon paresis and diseases of the pancreas deserve special mention for the scientific thought which they both suggested and developed. The president's address, the text of which being *The Value to a Physician of Modern Methods of Diagnosis*, was a paper of great practical importance as well as scientific worth.

Among the out-of-state visitors were Drs. F. X. Dercum, Chas. P. Noble and Henry W. Cattell, of Philadelphia, Edward Cowles, of Boston, Denslow Lewis, of Chicago, R. H. Chittenden, of New Haven, W. S. Thayer and J. C. Bloodgood, of Baltimore, whose papers were distinctive features of the program.

The social side of the meeting was well sustained, beginning with a dinner to the president and ex-presidents, by Dr. Daniel Lewis, at the Fort Orange Club, on Monday evening, January 27, and continuing on Tuesday and Wednesday with luncheons and dinners, among which those by Dr. Albert Vander Veer, Dr. William C. Krauss, and Mr. William J. Evans were conspicuous, and terminating with a reception by the president and the annual banquet of the society, at the Ten Eyck, Wednesday evening, January 29. The banquet was one of the best the society has ever given. There were 325 chairs taken and after the large banquet hall was filled to overflowing the annex was quickly appropriated and its capacity taxed to its utmost. The music was excellent and the inspiring responses from the floor added picturesqueness to the scene that was enjoyed from the mezzanine by the ladies.

Speeches at the dinner were made by President Elsner, Governor Odell, Dr. A. Jacobi, Dr. W. G. Macdonald and several other post-prandial speakers of distinction. Dr. Arthur G. Root acted as master of ceremonies and conducted them with élan, his witty interlocutory utterances adding much to the zest of the occasion.

With all this splendid enthusiasm marking the first two days, the third day, it must be confessed, might and ought to have been better. Some plan should be devised to hold the attention for three full days and thus avoid crowding the program during Tuesday and Wednesday.

Dr. Elsner proved a model presiding officer and conducted the work with despatch, never once permitting the business to lag. It is a rare accomplishment.

Dr. Lucien Howe, of Buffalo, was awarded the Merit H. Cash prize.

The Buffalo and Erie County contingent was made up of the following-named members and delegates: Drs. Henry R. Hopkins, Roswell Park, William Warren Potter, William C. Krauss, Lucien Howe, F. E. Fronczak, Irving M. Snow, J. G. Thompson, Henry Lapp, R. S. Myers, Ernest Wende, Walter D. Greene, Edward Clark, Arthur W. Hurd.

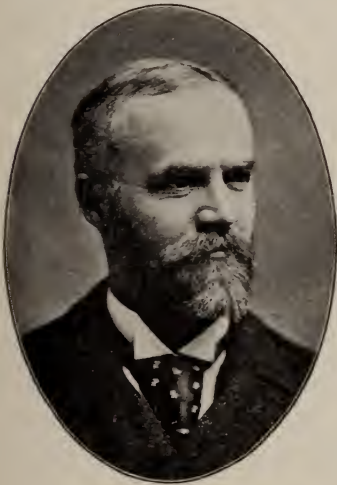
The election of officers resulted as follows: President, Henry Reed Hopkins, of Buffalo; vice-president, William A. Moore, of

Binghamton; secretary, Frederic C. Curtis, of Albany; treasurer, O. D. Ball, of Albany.

Since the foregoing was reduced to type, the council of the New York State Medical Association has appointed the following-named Committee of Conference: E. Eliot Harris, chairman, Wm. H. Biggam, Emil Mayer, Parker Syms, Frederick Holme Wiggin, and the president, A. A. Hubbell, ex-officio.

THE PRESIDENT AND VICE-PRESIDENT ELECT.

Dr. Henry Reed Hopkins, of Buffalo, was elected president of the Medical Society of the State of New York at its 96th annual meeting, at Albany, January 28-30, 1902. In the history of the



HENRY REED HOPKINS.



WILLIAM A. MOORE.

society, which began in 1806, but five Buffalo physicians have preceded Dr. Hopkins in this honor.

Henry R. Hopkins was born at Jamestown in 1844. His preliminary education was received in the public schools and the Jamestown Academy, after which he came to Buffalo and began the study of medicine in May, 1865. He was graduated from the medical department of the University of Buffalo in 1867 and afterward obtained two years' experience in the Washington hospitals. In January, 1869, he returned to Buffalo and began practice with his distinguished uncle, Dr. Gorham F. Pratt.

He is a member of the Medical Society of the County of Erie.

of the American Public Health Association, and of the Buffalo Academy of Medicine. Since 1885 he has been a permanent member of the Medical Society of the State of New York, and for the last five years he has been chairman of the standing committee on hygiene. He is a member of the medical staff and attending physician at the Buffalo General Hospital. For a number of years he taught diseases of the nervous system in the University of Buffalo, and now teaches hygiene in that institution. He is a life member of the Buffalo Historical Society and of the Society of Natural Sciences. He was for many years a vestryman of St. Paul's Church, was a member of the National Guard, attaining the rank of Colonel and Surgeon of the eighth division. He enjoys a very large practice among the oldest Buffalo families, and he belongs to that somewhat distinctive if not exclusive set, now again growing into prominence—the family doctors. His active work in the society during many years has received, in his elevation to the presidency, the recognition it deserves.

DR. WILLIAM A. MOORE, of Binghamton, who was elected vice-president of the Medical Society of the State of New York at its recent annual meeting, belongs to one of the oldest families of the southern tier, his great grandfather numbering among the earliest settlers of Broome County. He received his preliminary education at the high school in Binghamton and took his baccalaureate degree at Columbia University in 1882, in the same class with President Nicholas Murray Butler. While in Columbia he was a member of the varsity crews of 1881, 1882 and 1883.

Dr. Moore received his doctorate degree at the College of Physicians and Surgeons, now the medical department of Columbia University, in 1885, served on the house staff of the Presbyterian Hospital at New York from 1885 to 1887, and began the practice of medicine at Binghamton in 1888. He has become one of the best known operating surgeons in his region, and is surgeon to the Lackawanna Railway, to the Binghamton Street Railway system, and Chief Surgeon to the Binghamton City Hospital. He became a permanent member of the society in 1896.

In Dr. Moore's election, which came to him as a surprise, the society has secured to its official counsels for the current year a man of broad culture, liberal training, and ripe experience.

The Osteopathic Bill.

THE perennial effort before the legislature to impair, in some manner, the efficiency of the medical practice act in the State of New York has failed at least in one particular this year. The much boasted effort of the osteopaths to become doctors without the training and education required of doctors has come to naught.

The bill introduced by Senator Brackett early in the session, but for which he disclaimed responsibility, was brought to a hearing before the Senate Judiciary Committee January 29, 1902. The committee was addressed in opposition by Bishop Doane, Dr. A. Jacobi, Dr. A. Vander Veer, Dr. Henry R. Hopkins, Dr. E. Eliot Harris and some others. Dr. Frank Van Fleet, chairman of the legislative committee of the State Medical Society conducted the hearing on the part of the opposition. The proponents of the measure were represented principally by osteopathist Steele and former Governor Fisk, of Vermont.

The senate chamber, where the hearing was held, presented an interesting and animated scene, filled as it was on floor and in galleries. It was not difficult for the opponents of the bill to convince the committee that it would be unwise to pass it. The arguments were so conclusive that without leaving their seats the committee by a vote of 7 to 2 decided to bury the bill. The dignified manner in which the bill was opposed and the good temper of the speakers was the subject of comment on all sides—even the osteopathic sympathisers conceding this much—all of which could not fail to make a favorable impression. It is to be hoped that a similar spirit will prevail in all legislative hearings whenever questions of medical interest are involved.

Buffalo University Alumni Reunion.

THE fourth midwinter reunion of the alumni of the medical department of the University of Buffalo was held on Washington's birthday, February 22, 1902.

The program was announced as follows: State laboratories, Daniel Lewis, M. D., New York State Commissioner of Health; Old Forts on the Niagara Frontier, Peter A. Porter, the accepted historian of Niagara; The value of wit and humor, in dealing with public questions, Herbert P. Bissell; Tri-color photography, with stereopticon, Conrad Baer.

The Gratwick research laboratory, in which is located the new cancer laboratory of the state department of health, was thrown open for inspection. The alumni invitations were accompanied by the card of the state commissioner of health, and the council and faculty of the University, inviting an inspection of the laboratory from 4 to 6 and 8 to 10 p.m. The alumni proceedings were announced to begin at 9 o'clock.

Soon after that hour, Dr. M. D. Mann, dean of the faculty, took the chair and read a telegram of regret from Dr. Daniel Lewis stating that owing to the illness and death of his mother, he would be unable to attend the meeting. After appropriate introductory remarks, Dr. Mann introduced the Hon. Peter A. Porter, of Niagara Falls, who delivered a most interesting address on the Forts of the Niagara Frontier. Mr. Porter is an enthusiastic student of the history of this region, and portrayed the stirring events relating to its occupation and early settlement in graphic English and well-chosen rhetoric.

He traced the history through the Indian, French and British eras on both sides of the river and through the American period after occupancy on this side of the Niagara, giving much interesting data and imparting instruction of great value. Such addresses inspire renewed interest in subjects of great importance.

Mr. Herbert P. Bissell took up the subject of wit and humor, especially applying it to the elaboration of public questions. He read from Artemus Ward and Mr. Dooley, giving the latter in excellent imitative dialect. Among the selections read was "Mr. Dooley on the Practice of Medicine," published in the JOURNAL, August, 1901. After an interesting exhibition of tri-color photography with stereopticon illustrations, by Conrad Baer, supper was served in the library.

THE GRATWICK LABORATORY.

The Gratwick Laboratory, located at No. 99 High Street, opposite the Buffalo General Hospital, founded by Mrs. Martha Gratwick and her son, William H. Gratwick, was originally intended as a laboratory for general medical research and placed under control of the council of the University of Buffalo. The cancer laboratory, which is endowed by the state, was also at first under the control of the University of Buffalo, but in deference to the wishes of Governor Odell that the state should give no aid to private institutions, the laboratory was transferred to the control of the state board of health. As the Gratwick Laboratory is the only available quarters in the city for carrying on

scientific research of this kind, it was decided to continue the cancer work in this building, and in order to do so the institution also had to be transferred from the control of the university council to that of the state. Under this arrangement, the state will pay for the maintenance of the institution.

In addition to the cancer research department the laboratory is completely furnished with all the latest scientific equipments for general medical-research work and will afford plenty of opportunity for independent investigation, which was the original intention of the founders. There is a pathological laboratory in charge of Dr. Harvey R. Gaylord; a bacteriological department in charge of Dr. Herman G. Matzinger and a chemical room in charge of Dr. G. H. A. Clowes. Among the other features are an animal room, in which are housed the specimens used for the development of germ cultures, two micro-photographic rooms, for obtaining negatives of the developed cultures, a combustion room for experiments with chemicals of a highly explosive nature. The building is thoroughly fire-proof, germ-proof and water-proof. Perfect ventilation is secured by means of a huge revolving fan at the top of the building, which has a draught connection with every room. This inspection proved an interesting feature of the day.

The laboratory is under the control of the state department of health, which is represented by State Commissioner Dr. Daniel Lewis, of Albany. Dr. Roswell Park, the director, is the executive head and Dr. Harvey R. Gaylord, pathologist in charge, is the scientific director of the institution.

Vital Statistics of the Census.

WE ARE in receipt of an important communication from the United States Census Office, inviting the JOURNAL to coöperate with that office and with the American Public Health Association in an effort to improve and to make uniform over our entire country the nomenclature and the practice of reporting and recording deaths,—an important portion of vital statistics. This movement is wise and timely; upon this question we have decided convictions and we urge its importance with all emphasis.

The facts in the case constitute a scandal of such proportions and nature as should stir to action every member of the medical profession, and should cause such members of the American

Medical Association as still have the ability and inclination to think upon such problems to reflect that possibly it might be better for a time to stop disputing over ethical distinctions, and directions as to hand-washing and hair-parting, and to devote their spare time to more ennobling efforts.

The 12th United States Census gives the mortality statistics for the year 1900, and deems it of importance to state that "the registration area has increased almost 50 per cent. over 1890, and now comprehends nearly 29,000,000 population." This registration area is so named because within this area provision is made for the intelligent registration of deaths, in such form and manner that the data is fit for use in the preparation of the national census.

At the time of the last census this registration area included the District of Columbia and the States of Connecticut, Delaware, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

There is also a nonregistration area and this included more than 47,000,000 population—and in this vast area no provision is made for the registration of deaths in such form and manner as is fit for use in the making of a census, and this nonregistration area comprehends the balance of the country including with others such states as Illinois, Indiana, Iowa, Ohio and Pennsylvania. It seems incredible that our advance in civilization is so superficial and unreal that so large a part of our country should be subject to such criticism.

We need, at once, and for all, a uniform nomenclature and a uniform and universal method of registration of deaths, and we call upon the medical men of the several states where this does not exist to cease not from fasting, from prayer, and from agitation, until the desired end be accomplished.

Of course local laws must have local provisions but the general provisions recommended by the census office are so few, simple, and obviously essential that it should be easy to include them. The suggestions are that provision be made (1) that deaths be registered immediately after their occurrence; (2) that certificates of death should be required; (3) that burial or removal permits are essential to the enforcement of the law; (4) that efficient local registrars are necessary; (5) that the responsibility for reporting deaths to the local registrar should be fixed; (6) that the central registration officer should have full control of the local machinery and its rules should have the effect of

law; (7) that the transmission and preservation of records should be provided for; (8) that penalties for neglect or errors should be exacted.

How this scandal makes plain the weakness of the medical profession in the several states as a factor of progress and how plain it is that medical schism and dissension has much to answer for as a cause of medical inefficiency or impotency in public matters!

We venture to prophesy that in a decade the united medical profession of the United States could place in the cabinet a Secretary of Health, who should rank next after the Secretary of War, and that in the following decade this officer, properly administering his trust and adequately supported by the same united profession, could so increase the general efficiency of that profession as to cut the death-rate more than 50 per cent.; could increase the average expectation of life of the American citizen by at least ten years, and that in doing this they would only bring the practice of medicine up to the level of its science.

THE relation of smallpox to swine has been investigated by the department of health of Buffalo, and has been reported upon by the bacteriologist and local inspector of the bureau of animal industry. We quote the following from the report:

As regards results and final conclusions, although the work is far from completion at the present time, the following can be stated:

1. That the unusual disease noticed in swine is not of the same nature as smallpox.

2. That in the opinion of investigators, it is impossible by any known means of inoculation, to communicate smallpox to swine.

3. That there is an infectious agent present in vaccine that is distinct from that present in the virus of smallpox.

4. That the peculiar dermal disturbance, as seen in the swine is of unusual occurrence in this section of the country, and so far as it has been possible for us to ascertain it is not described in the literature of the day.

5. That inoculation of swine with the virus of smallpox does not confer immunity to vaccinia.

6. That most of the reports of the transmission of smallpox to the lower animals are without scientific substantiation.

7. That the investigators would suggest that with a more complete study into the nature of the variolæ of the different domesticated animals, a greater distinction, rather than a closer relationship, will be established, and that the relationship between these diseases and smallpox, with a possible few exceptions, will be found equally remote.

By A law of Connecticut narcotic and alcoholic patients may voluntarily commit themselves to a sanitarium in that state for treatment for any length of time not exceeding one year. Chapter 230, Section 3690, General Statutes of Connecticut, reads as follows:

The managers, trustees or directors of any inebriate asylum established by the laws of this state, may receive any inebriate or dipsomaniac who shall apply and be received into such an asylum, retain him one year and treat and restrain him in the same manner as if committed by the Probate Court.

PERSONAL.

DR. EDWIN RICKETTS, of Cincinnati, was a recent visitor in Buffalo, the guest of Dr. William Warren Potter. He was delighted with the fine sleighing that afforded an opportunity for a ride on the snow, which proved a rare treat to him.

DR. and MRS. CHARLES G. STOCKTON, of Buffalo, sailed February 8, 1902, on the Celtic for the Mediteranean trip, to be absent until the middle of April.

DR. W. J. O'DONNELL, of Buffalo, formerly house surgeon at the Emergency Hospital, whose office is at No. 269 Carolina Street, has been appointed physician to the Buffalo Natural Gas and Fuel Company.

DR. L. H. LAIDLEY, of St. Louis, has been appointed medical director of the World's Fair, to be held in that city in 1903.

DR. A. L. BENEDICT, of Buffalo, has removed from 998 Main Street to The Roanoke, 156 W. Chippewa Street, corner Morgan Street. Practice limited to diseases of the digestive organs: stomach, intestine, liver. Hours: 8 to 9, 2 to 3, 6.30 to 7.30; Sundays, 12 m. Telephone, Tupper 670. At 795 Ellicott Square, 5 to 6 p.m.

DR. WALTER L. SAVAGE, of Buffalo, Niagara University, 1897, has been appointed medical examiner of immigrants at this port. That position is connected with the United States Marine Hospital Service. Dr. Savage was informed recently that he had

passed the federal civil service examination for the place and he has assumed the duties of the office.

DR. EDWARD A. SOUTHALL, U. of B. '98, a member of the Board of Health, Manila, P. I., has been appointed to the medical examining and licensing board of the Philippine Islands.

DR. HENRY L. ELSNER, of Syracuse, retiring president of the Medical Society of the State of New York, read a paper before the Buffalo Academy of Medicine, medical section, Tuesday, February 11, 1902, as announced elsewhere. He was entertained at dinner by Dr. Julius Ullman, who invited about a dozen Buffalo physicians to meet the distinguished ex-president.

DR. MARY CLAYTON, of Buffalo, passed the recent civil service examination for state hospital appointments at the head of the list.

DR. AND MRS. EDWARD T. SMITH, of Buffalo, are spending a few weeks in the south, and their trip includes a visit to Charleston and St. Augustine.

OBITUARY.

DR. PAUL FORTUNATUS MUNDÉ, of New York City, died February 7, 1902, from heart disease at his home, No. 20 West Forty-fifth Street, after an illness of two months.

Dr. Mundé was born in Dresden, Saxony, September 7, 1846. He was the son of Charles Mundé and Bertha von Hornemann-Mundé. The latter was the daughter of Baron von Hornemann, counselor of the King of Saxony. At the age of three years he was brought to this country by his parents, his father being a political refugee.

Paul F. Mundé was educated at home in his early years, then he was sent to the Public Latin School at Boston. In 1863 he entered Yale Medical Department. Leaving college before his course was completed he went to the civil war, serving as an acting medical cadet during six months of 1864. Afterward he entered Harvard Medical School, from which he was graduated in 1866. The same year he went to Europe and enlisted as a volunteer assistant surgeon on the Bavarian side in the war of 1866, receiving the cross of civil merit at its close.

When he was mustered out of the Bavarian army he went to Würzburg, becoming resident physician to the maternity hospital. It was here he came under the influence of Scanzoni, which probably shaped his destiny. He remained at Würzburg till 1870, when he joined the Bavarian army, in which he served as battalion surgeon, with the rank of first lieutenant, during the Franco-Prussian war. He received the iron cross from the Emperor for his heroism in removing patients from a burning hospital on the outskirts of Paris.

At the close of the war Dr. Mundé devoted himself to hospital work, receiving the degree of Master of Obstetrics from Vienna in December, 1871. He visited various hospitals of Europe in the next two years, including those at Heidelberg, Berlin, London, Edinburgh and Paris. He returned to this country and settled in New York in 1873, where he devoted himself to gynecology and consulting obstetrics.

In 1874 he became the editor of *American Journal of Obstetrics*, a position in which he continued until January, 1892. He was one of the founders of the American Gynecological Society, of which he was vice-president in 1898. He served as president of the New York Obstetrical Society from 1886 to 1888. He was elected vice-president of the British Gynecological Society in 1887. He was a member of the German Gynecological Society and a corresponding fellow of the obstetrical societies of Philadelphia, Leipsic and Edinburgh. He was a member of the Medical Society of the County of New York, and a fellow of the New York Academy of Medicine.

In 1897 Dr. Mundé received the degree of LL.D., from Dartmouth, where he had been professor of gynecology since 1880. He belonged to the Union League, Riding and South Side Sportsman's Clubs.

Dr. Mundé was exceedingly fond of fishing. He made canoe trips of four days' duration into the St. John's Lake district, where the land-locked salmon fishing with a fly was famous, a number of years ago. He was the author of several authoritative books, and over one hundred journal articles, relating to obstetrics and gynecology. His treatise on minor surgical gynecology is known all over the world. Whenever and wherever gynecology is discussed the name of Mundé is mentioned, and his work as editor of the *American Journal of Obstetrics* referred to gave direction to American gynecology.

DR. HARVEY PARKHURST, U. of B. '51, of Danvers, Ill., died at his home January 16, 1902, after a very short illness, aged 79 years. He was a prominent and respected member of the medical profession.

DR. ELEAZOR PRICE, U. of B. '55, died at his home in Jackson, Mich., January 18, 1902. His age was about 70 years.

DR. PETER FAILING, of Gasport, N.Y., died suddenly in his office November 23, 1901, aged 69 years.

DR. LEROY E. JONES died at Buffalo, January 5, 1902, aged 81 years.

DR. JOSEPH W. KEENE, of Fallbrook, Cal., died at his home January 30, 1902, from apoplexy, aged 54 years. He was a graduate of Harvard University, class of 1878, and resided in Buffalo for several years. He was a man of accomplishment, and enjoyed the esteem of his colleagues.

WILLIAM H. TREAT, son of E. B. Treat, and vice-president and treasurer of the publishing house of E. B. Treat & Co., died at his home at Mount Vernon, N.Y., December 27, 1901, aged 33 years. He was a business man of prominence and well known to the medical profession.

DR. CASSIUS O. JACKSON, U. of B. 1880, died at his home in Victor, N.Y., January 27, 1902, aged 47 years. His death was due to acute pneumonia after a three days' illness. Dr. Jackson, a native of Canandaigua, was one of the best known physicians in his region, was engaged in active practice until his last illness and had been a resident of Victor since the date of his graduation.

DR. LEVI COOPER LANE, in San Francisco, the eminent surgeon, died at his home February 19, 1902, aged 69 years. His death was due to a general breakdown of the system. He was the founder of the Cooper Medical College and the Lane Hospital.

DR. JOHN T. METCALFE, formerly of New York, died at his home in Thomasville, Ga., January 30, 1902, aged 84 years. He was for many years one of New York's most noted physicians and a teacher of medicine at the College of Physicians and Surgeons.

SOCIETY MEETINGS.

THE Buffalo Academy of Medicine held meetings during the months of January and February, 1902, as follows:

Section on Obstetrics.—Tuesday evening, January 28. Program: In pelvic suppuration, when shall we operate by the abdomen, and when by the vagina? William R. Pryor, Prof. of Gynecology, New York Polyclinic.

Section on Surgery.—Tuesday evening, February 4. Program: The significance of the use of Credé's silver preparations in surgery, Roswell Park. The blood and its relation to surgical diagnoses, Albert E. Woehnert.

Section on Medicine.—Tuesday evening, February 11. Program: Pneumococci and cardiac toxemia, Henry L. Elsner, Syracuse; Baby farming in Buffalo, Julius Pohlman.

Ophthalmology, Otology, Laryngology and Rhinology.—Monday evening, February 17. Program: The treatment of empyema of the sphenoid sinus, F. W. Hinkel.

Section on Pathology.—Tuesday evening, February 18. Program: Clinical and pathological cases in dermatology (stereopticon) John Addison Fordyce, Professor of dermatology and syphilography, University and Bellevue Medical College, New York City.

Section on Obstetrics.—Tuesday evening, February 25. Program: Interesting experiences in abdominal surgery, Carlton C. Frederick. Retroversions in girls and unmarried women, Herman E. Hayd.

THE Harvard Medical Society, of New York City, at its annual meeting, held at the Metropolitan Club on Saturday evening, January 24, 1902, elected the following-named officers for the current year: President, William B. Coley; vice-president, Myron P. Denton; secretary, J. Hilton Waterman; treasurer, Joseph A. Kenefick.

THE Physicians' League held its fourth meeting for the season 1901-1902 at the Buffalo State Hospital, January 27, 1902, the guest of Dr. Helene Kuhlman. Dr. Willis G. Gregory was the essayist of the evening and, by invitation, read an interesting paper on The pharmacopœia.

BOOK REVIEWS.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Bacteriology. A Text-Book of Special Bacteriologic Diagnosis. By PROFESSOR DR. K. B. LEHMANN, Director of the Hygienic Institute in Würzburg; and R. O. NEUMANN, Dr. Phil. and Med., Assistant in the Hygienic Institute in Würzburg. From the second enlarged and revised German edition. Edited by George H. Weaver, M. D., Assistant Professor of Pathology, Rush Medical College, Chicago. In two volumes. Part I., consisting of 632 colored figures on 69 lithographic plates. Part II., consisting of 511 pages of text, illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$5.00 net.]

In addition to being a most excellent work on bacteriology this book, in the very opening words of its preface, has the distinction of presenting a novelty in the shape of a glimpse behind the family curtain—something which we have never before been granted in a medical book. It is quite delightful, too, for it teaches a lesson or two; that virtue hath its own reward and that the old maxim, "If at first you don't succeed, try, try again," is a pretty good thing to tie up to as a general proposition. Here is the way the introduction begins: "For years my brother, J. F. Lehmann, the publisher in Munich, has requested me to furnish him for his medical atlases one which would simplify bacteriologic diagnosis. After I had long refused to undertake the vast labor which this would necessitate, a fortunate circumstance in the summer of 1894 led me to accept the plan."

Now imagine a reviewer with an imagination picking up this book with the best intentions in the world and running across that at the very beginning, and then wonder that the reviewing lagged. Who could help seeing in his mind's eye the soul-harrowing and pathetic picture of sordid Trade on its bended knee before the majesty of Science pleading with tearful eye and imploring voice for a book on bugs? And then the years of weary waiting on the part of brother Lehmann; the patience—it is noble; it is Joblike. But the reward came and he got the book thanks to that fortunate circumstance in the summer of 1894, which was the discovery of Dr. Neumann's talent for drawing.

With brother Lehmann we—and in "we" is included the eminent Mr. Saunders of Philadelphia, who has the distinction of having placed his name on the American edition—we should bless the summer of 1894, for it has been productive of a most remarkable book on bacteriology. It is remarkable in more ways than one. Not alone is it intelligible and hence interesting aside from its real value as a scientific work, but the illustrations in Vol. I. are probably the most perfectly pictured reproductions of bacterial life which have ever been printed. They are works of art; they are true in color and relationship and are much superior to the usual photographic reproductions and give a better general idea of the subject. This is especially true as re-

gards the stab, streak and potato culture plates, while in the slightly magnified plate colonies the drawing gives a remarkably clear idea of the depth of the object; an end which is not always obtained when photography is wholly relied upon.

The field for photography in bacteriologic work is practically limited to the representation of individual bacteria magnified 1,000 times; and here it is unquestionably the only practical method of illustration. And a point which should not be overlooked in weighing the value of this work is that 96 per cent. of the illustrations are original, which at once removes it from any suspicion of belonging to that class of scientific publications which has been referred to in these pages heretofore on more than one occasion, as a product of a literary scrap heap. It is all fresh and it has the vigor of an honest book builded with brains.

The second or text volume is divided into two parts in which are considered general and special bacteriology. The former presents a condensed survey of the principal properties of bacteria and their aid in diagnosis; and there is a list of rules for media and stains. In the special part there is a complete description of the important varieties; a few new species have been introduced and where identical varieties have been described under various names, they have been grouped and the result is that all through the work there is noticeable an effort on the part of the author to build up a natural system. It is fortunate that brother Lehmann had such perfect patience; it is well that the summer of 1894 gave birth to such a momentous discovery. The combination has been of untold benefit to literature—and
N.W.W.

A MANUAL OF VENEREAL AND SEXUAL DISEASES. By WM. A. HACKETT, Ph.G., M. C. P. S. (Ont.), Professor of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery; and N. E. ARONSTANE, M. D., Ph. G., Assistant in Chemistry and Clinical Dermatology in the same institution. Chicago: G. P. Engelhard & Co. 1901.

This small volume, 203 pages, is divided into four parts in which the authors deal with (1) gonorrhea and its complications, including circumcision, (2) chancroids and their complications. (3) syphilis and (4) sexual psychoses. Although too much cannot be expected from a work of this size, nevertheless many things that are today considered as up-to-date practice are entirely omitted.

Objections must be taken to the advice that a catheter is necessary either in the treatment of anterior or posterior urethritis. In these conditions medication can be made without its use; and thus fully 50 per cent. of irritation avoided. Mention should have been made of leeches in acute prostatitis, for with this mode of treatment all symptoms are obliterated and the glands brought to an apparently normal condition in a few hours, instead of days, as must be the case under the advised treatment.

More space should have been given the symptoms of cystitis, so as to differentiate it from posterior urethritis.

The treatment advised for cystitis seems to be that in vogue years ago. Today it is recognised that a patient with acute gonorrheal cystitis need not go to bed, but all distressing symptoms may be relieved and a complete cure obtained in a few hours.

In mentioning the complications of stricture the most common one—namely, infiltration, has been omitted. The authors say under treatment, "treat the urethritis before touching the stricture;" this is the soundest rule that could be advanced and one that if followed would be derivative of much better results than is generally obtained. When speaking of retention no mention is made of local anesthesia to the strictured tissue. Considering that the lumen of the canal is never closed, that the apparent closure is due to spasmodic contraction which is increased the moment an instrument touches it, the result can be imagined where cocaine or eucaine is used.

Syphilis is well considered for the space given it, yet there are a few points with which the writers may be differed from, chief among which is the recognised fact that, except in the presence of extragenital chancre (and there should be good ground for the diagnosis here) treatment should not be commenced until the appearance of the secondaries.

In Part IV. the writers should have differentiated between masturbation and onanism, as they are two entirely distinct habits, the former not usually acquired until marriage, whereas the latter begins at puberty; then, again, the treatment is entirely different in each case. In the treatment of these psychoses mention should have been made of the mixture known as arsenauroid, as the result obtained from its use is marvelous in these conditions.

J. H. D.

THE STANDARD MEDICAL MANUAL. A Handbook of Practical Medicine. By ALFRED S. BURDICK, M. D., Junior Professor of Practice of Medicine, Illinois Medical College, etc., etc. Pages, 921. Illustrated. Chicago: G. P. Engelhard & Co. [Price, cloth, \$4.00.

In the very beginning the author makes it clear that he lays not the slightest claim to greatness for this book; he has no hope of it becoming a standard work, and explains that its title has reference to the publication of which he is editor; and yet in spite of his modest assurance in this regard the book will compare favorably with a great many of the more pretentious works on the same subject, which have been pushed into circulation under the cloak of originality. Dr. Burdick is a very busy man with his editorial work and goes through great masses of medical literature, books and journals. From these he has collected the best material obtainable, facts and methods which his own experience as an instructor and his own judgment as a physician tell him are of value to the every-day practitioner, and the result has been the compilation and publication of this book,

which in a way fills a hitherto unoccupied field, for the material it contains is in getatable shape.

Dr. Burdick gives in brief the most important facts concerning etiology, pathology, symptomatology of the diseases treated and devotes especial attention to treatment with reference to authorities. There is no fine writing between the covers; theories are not exploited; might-have-beens and may-bes and possibilities have no place in the work and the effort he has made to be thoroughly practical and up-to-date has been eminently successful. Dr. Burdick intends the manual to be of use and assistance to the man who is practising medicine in a broad sense, and for this reason the diseases of specialists have either been competently briefed or entirely omitted; and additional space given to those diseases which the doctor is most likely to run across in his every-day life, such as tuberculosis, typhoid, diphtheria, scarlatina, pneumonia, and the like.

Quite an unusual feature in a book on practice is the attention devoted to the minor ailments which are seldom taught in colleges and rarely mentioned in text-books, but which many times are the worriment of the young man in medicine. There is given a large number of prescriptions and the importance of diet, hygiene, hydrotherapy and other physiologic methods of treatment is dwelt upon at length. The articles are arranged in alphabetical order without reference to the scientific classification of disease and in an appendix are given directions for the examination of urine and stomach contents, and for the recognition of the common forms of bacteria. It is a cleverly arranged work and it deserves the success which its value as a medical book entitles it to.

N.W.W.

A GUIDE TO LECTURES AND LABORATORY WORK FOR BEGINNERS IN CHEMISTRY.

Specially adapted for students of medicine, pharmacy and dentistry. By W. SIMON, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition, thoroughly revised and much enlarged. In one 8vo volume of 613 pages, with 66 engravings, 1 colored spectra plate and 8 colored plates representing 64 of the most important chemical reactions. Philadelphia and New York; Lea Brothers & Co. 1901. [Price, cloth, \$3.00 net.]

The author of this work needs no introduction to the American profession, as his excellent work on Clinical Diagnosis has been before the public for several years and has passed through numerous editions. His success at book making enticed the author into a neighboring field and another excellent work is the result of his careful labors and researches.

Dr. Simon is an admirably clear writer and teacher, and has adapted his book not only to the needs of students, but also to those of the practitioners who may have been unable to devote to the subject the study which it merits. The volume will also serve as a guide in collegiate or private laboratories.

The first section of the book gives a general survey of the

origin and chemical nature of the three great classes of foods and of the products of their decomposition. In the second section, are treated the processes of digestion, resorption and excretion. The third is devoted to the chemical study of the tissues and various organs of the body, the products of their action and their relation to physiological function.

The author discusses the elementary composition of the albumins, fats and carbohydrates—gives the different characteristic reactions, their solubility, behavior to acids and alkalies and the chemical composition of their compounds and derivatives. Under the second head are discussed the juices of the body, the processes of digestion, either of the carbohydrates, albumins or fats. The chapter devoted to the urine is unusually complete, the newer tests carefully described and their importance pointed out.

The chemistry of the different organs of the body occupies the concluding chapters, and is perhaps the most interesting part of a most interesting book. To many the advances in therapeutics must be in line with the chemistry of the different organs and progress here will be most satisfactory. Dr. Simon deserves the thanks of the profession for his painstaking labor and should be accorded the support of the profession.

The book is well printed and nicely bound. W. C. K.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by HENRY W. CATTELL, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume III. Eleventh series. Philadelphia: J. B. Lippincott Co. 1901. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

This volume contains lectures upon therapeutics, medicine, neurology, surgery, and diseases of the eye and throat, together with a paper on laboratory methods, the latter by C. N. B. Camac, of New York. Among the foreign contributors are John Abercrombie, William Henry Battle, J. W. H. Eyre, Amand Routh and A. H. Tubby, of London; Valdemar Bie, of Copenhagen; Patrick J. Fagan, of Dublin; Alexander James, of Edinburgh; Louis Jullien, Edmund Landolt, Paul Reclus and A. Routier, of Paris; Augusto Murri, of Bologna; Arnold Pick, of Prague, and Demetrius Roncali, of Rome. Among the domestic contributors are D. R. Brower, W. Cheatham, Solomon Solis-Cohen, T. D. Crothers, John B. Deaver, George M. Edebohls, Beverly Robinson and Charles F. Withington. Some of the lectures are illustrated with half-tones and drawings. The standard of this excellent series is well maintained in this volume.

THE STANDARD MEDICAL DIRECTORY OF NORTH AMERICA. Consisting of Twelve Parts, including Directory of Physicians of North America, Medical Colleges, Medical Service of the United States, Medical Societies, Medical Practice Acts, Medical Publications (including Books and Periodicals), Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers and Life Insurance Companies. Chicago: G. P. Engelhard & Co. 1902. [Price, \$10 00.]

This directory is a handsome imperial octavo book of 925 pages, printed in clear type with the names of places in heavy face, and divided into sections, the latter numbering twelve parts. This arrangement facilitates reference and the general plan is such as to exhibit in concise form the various interests represented in the respective parts.

Such a book involves an enormous outlay of money and it is surprising, considering the difficulties encountered, that such accuracy of detail has been attained. One of the interesting features of the book is part 5, entitled medical legislation which gives the text of the medical practice acts of all the states; a synopsis of the statutes and of board regulations and rulings, together with the personnel of the state boards of health, and in most instances of the state boards of medical examiners. In the latter respect, however, some of the states have been inadequately reported, notably Alabama, Connecticut, New York and Pennsylvania.

The book is substantially bound in red buckram, decorated in gold, and is a credit in every way to the publishers.

PROGRESSIVE MEDICINE. Vol. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 400 pages, 13 illustrations. Philadelphia and New York: Lea Brothers & Co. [Per annum, in four cloth-bound volumes, \$10.00.]

The contents of this volume include diseases of the digestive tract and allied organs, the liver, pancreas and peritoneum, by Max Einhorn; genito-urinary diseases, by William T. Belfield; anesthetics, fractures, dislocations, amputations, surgery of the extremities and orthopedics, by Joseph C. Boodgood; diseases of the kidneys, by John Rose Bradford; physiology, by Albert Brubaker; hygiene, by Henry B. Baker; practical therapeutic referendums, by E. Q. Thornton.

In each of these sections, all of which have been prepared by men of experience, recent advances of value are recorded in such a way as to make them of practical value to the everyday practitioner of medicine, whether generalist or specialist. The reader will readily observe that it contains a series of critical reviews by men who are distinguished in medicine. The four volumes for 1901 afford a vast amount of valuable material that cannot be found elsewhere.

A TEXT-BOOK OF OBSTETRICS. By BARTON COOKE HIRST, M. D., Professor of Obstetrics in the University of Pennsylvania. Third edition, thoroughly revised and enlarged. Royal 8vo, 873 pages, with 704 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$5.00 net.]

The third edition of this book does not differ from the previous editions except in the following particulars: The chapters on diagnosis of pregnancy, the pathology of pregnancy, the pathology of labor, and obstetrical operations, contain considerable new material, and many other chapters have been revised in some respects; over fifty new illustrations, including three colored plates have been added, most of which are original. The size of the book, however, remains as before owing to condensation of the text or elimination, as the case may be.

It is a text-book that represents the present status of the obstetric art, is written by an experienced teacher, and altogether possesses many attractions for both pupil and teacher, to whom it is heartily recommended.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Special Pathologic Histology. By DOCENT DR. HERMAN BÜRCK, of the Pathologic Institute of Munich. Edited by Ludvig Hektoen, M. D., Professor of Pathology in Rush Medical College, Chicago. Vol. II.—Liver; Urinary Organs; Sexual Organs; Nervous System; Skin; Muscles; Bones. With 123 colored illustrations on 60 lithographic plates and 192 pages of text. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.00 net.]

This is the second of the three volumes on pathologic histology promised in the prospectus of the Saunders series of medical hand atlases, and it is a most excellent work in which the standard set in the first volume has been maintained. The special subjects covered are the liver, the urinary organs, sexual organs, nervous system, skin, muscles and bones. There are 123 colored illustrations on 60 lithographic plates, and as in the previous volume these add to the distinct value of the book as a scientific work of art. The third volume which soon will be issued, and which will complete the pathologic series, will treat of general pathology.

N.W.W.

MATERIA MEDICA, PHARMACY, PHARMACOLOGY AND THERAPEUTICS. By W. HALE WHITE, M. D., F. R. C. P., Physician to and Lecturer on Medicine at Guy's Hospital, London; Author of A Text-Book of General Therapeutics. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Medicine and Therapeutics at the New York Post-Graduate Medical School and Attending Physician to the Hospital; Visiting Physician to St. Mark's Hospital; President of the American Therapeutic Society; Fellow of the American Academy of Medicine, etc. Fifth American edition, thoroughly revised. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$3.00 net.]

The editor has thoroughly revised this well-known work on materia medica bringing it abreast of the times, and thus making it one of the best works on the subject in the English tongue. The care and discretion necessary to incorporate useful unofficial preparations and to exclude all those savoring of professionalism

has been wisely exercised, and although preparations by the score have been placed on the market, but few have found their way in this work. Many chapters have been condensed and partially rewritten, with editorial notes inserted in brackets whenever found necessary.

This work can be cordially recommended both to student and practitioner and will be certain to fulfill all expectations.

Press work and binding are similar to former editions.

W.C.K.

BOOKS RECEIVED.

A Manual of Ophthalmoscopy. For Students and General Practitioners. By J. E. Jennings, M. D. (Univ. of Penna.), Author of Color-Vision and Color-Blindness, etc.; formerly Clinical Assistant, Royal London Ophthalmic Hospital. Duodecimo, pp. 180, with 95 illustrations and 1 colored plate. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, \$1.25 net.]

The Practical Medical Series of Year Books. Ten volumes. Issued monthly, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. III. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, Albert H. Andrews and T. Melville Hardie. December, 1901. Pp. 346. Chicago: The Year Book Publishers. [Price, \$1.50.]

Chemical Pathology in its Relation to Practical Medicine. By C. A. Herter, M. D., Professor of Pathological Chemistry in the University and Bellevue Medical College, New York, etc. In one 12mo volume of 454 pages. Philadelphia and New York: Lea Brothers & Co. 1902. [Cloth, \$1.75 net.]

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by Henry W. Cattell, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D. of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume IV. Eleventh series. Philadelphia: J. B. Lippincott Co. 1902. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

LITERARY NOTES.

THE Vermont *Medical Monthly* began the new year with a complete change in style and dress. It is now a double columned quarto and makes a handsome appearance in its new clothes.

THE *Woman's Medical Journal*, published at Toledo, O., has changed its form and taken on a new dress. It is now a double-columned quarto and presents a prosperous appearance. Dr. Elizabeth Dunn has been added to its editorial staff.

THE Nathan Lewis Hatfield prize for original research in medicine by the College of Physicians of Philadelphia announces

through its committee that the sum of \$500 will be awarded to the author of the best essay in competition for the above prize. Subject, The relation between chronic suppurative processes and forms of anemia. Essays must be submitted on or before March 1, 1903. The details can be obtained upon application to Dr. J. C. Wilson, chairman, 219 South 13th Street, Philadelphia, Pa.

THE *Cleveland Journal of Medicine* and the *Cleveland Medical Gazette*, have united their interests, good names, and subscription lists in one magazine to be called the *Cleveland Medical Journal*. The new journal is owned and published by the Cleveland Medical Journal Company, whose officers are as follows: *President*, Dr. Marcus Rosenwasser; *Vice-President*, ————; *Secretary*, Dr. William E. Bruner; *Treasurer*, Dr. Joseph F. Hobson; *Editor*, Dr. P. Maxwell Foshay; *Associate Editor*, Dr. Edward S. Lander. The stockholders number about 45 of Cleveland's representative physicians, who announce that they do not expect dividends. We believe the amalgamation a wise act, and bespeak for our new contemporary a prosperous and happy career.

MISCELLANY.

NOTE ON ALBARGIN (Gelatosesilver)—This is an antiseptic, germicide and antigonorrheal remedy, containing 15 per cent of silver, or twice the amount of any other silver proteid. The gelatose molecule is very much smaller than is that of albumin, and this fact allows of a more ready and thorough penetration of the tissues. Because of the greater silver strength, a lesser percentage solution is needed to destroy the various forms of bacteria, 0.1 to 1.0 per cent. being used, according to indications. This fact very materially lessens the cost of treatment also, a not unimportant item.

Albargin is not precipitated from solutions by hydrochloric acid, sodium chlorid solution, nor does it coagulate albumin, thus building an impossible barrier to the antiseptic virtues of silver. This product seems to possess all the requirements of an ideal antiseptic for the treatment of gonorrhea, eye and ear conditions, as well as throat affections, where a remedy of this character is indicated. Messrs. Victor Koechl & Co., of New York, are the agents of this promising remedy.

This firm has also the valerianic acid diethylamid, known by the trade name, valyl. Experiments show valyl to possess all the virtues of valerianic acid and valerian when at its best, unfor-

tunately seldom, as the varying conditions of valerian make its use very uncertain.

Valyl is offered in gelatin capsules, each containing 2 grs. with an equal amount of olive oil, and is recommended in hysteria, functional heart disturbances, migraine, hemicrania, neuralgia, and painful menstruation.

LABORATORY COURSE IN BACTERIOLOGY.—Dr. William G. Bissell, bacteriologist to the health department of Buffalo has issued the following circular:

In view of the success attending the laboratory course in bacteriology, which was given to graduates in medicine and dentistry, last winter, in the old laboratory of the Dental Department, of the University of Buffalo, and the fact that a new and finely appointed laboratory is now at my disposal, I have decided to repeat the laboratory course and the first session will be given Monday evening, March 10, 1902, at 8.15 o'clock.

The course will cover six weeks instruction and will include twelve laboratory sessions. Each session will be under my personal supervision and the work will cover the more important portion relative to bacterial diagnosis of pus, blood, exudates, sputum, etc., and such parts of bacterial culture media manufacturing, preparation of cultures, staining, etc., as is required in such work. Each session's work will be mapped out in a printed syllabus of original compilation, and which proved such a decided aid to those taking the course last winter. The syllabus has been revised, having received some additions which renders it more serviceable and instructive. Among those who have subscribed to this year's course are Drs. Conrad Diehl, Albert H. Briggs, Herbert Mickle, and others equally well known in the medical profession.

Those desiring to avail themselves of this opportunity to personally carry on practical laboratory diagnosis will please communicate with me on or before March 1, 1902, at which time the class will be organized.

A fee of fifteen dollars (\$15.00) will be charged.

ITEM.

MESSRS. PARKE, DAVIS & COMPANY, of Detroit, have adopted the plan of encouraging their employes to become stockholders—a policy inspired by philanthropic purposes. The company proposes to issue 4,000 shares of its capital stock and permit the oldest among its employes, especially those in important positions as managers, superintendents and foremen, to purchase this new stock at \$55 a share. The present market value of the stock is \$70 a share, and face value \$25 a share. This is one of the institutions of which Detroit is very proud. From a small beginning in the early '70's the business has developed into world-wide proportions.

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No. 9.

ORIGINAL COMMUNICATIONS.

The Suprapubic and Vaginal Methods of Treating Pelvic Suppuration.¹

By W. R. PRYOR, M. D., New York.

IT SEEMS to me that very much of the discussion upon this subject arises from the "personal equation" of those who operate for this condition; and were it not for the partisan spirit shown by the advocates of one or the other method, we would be much nearer the truth than we are. Every man should operate by that method which will give him the best results. That is the personal; the scientific is apart from that. There are still some problems to be solved and we can all find sufficient glory in their explanation. I shall not take up your time in boasting of my results in vaginal work, nor in drawing a contrast to the detriment of any colleague who prefers to do laparotomy. I shall attempt to lead you into a discussion upon the principles which should govern us.

I will take first the acute cases, those in which the infection has but recently and for the first time passed outside of the uterus to tubal walls, ovary or peritoneum. It is an undoubted fact that the accepted routine and established method of treatment with by far the greater portion of the profession is to let these cases alone while waiting for a balance to be established between the infection and the tissue-resistance. You all recall the arguments pro and con regarding the question whether or not the gonococcus could cause peritonitis. We now know it can, but that it is not particularly irritating to the peritoneum. It is to the membranes lined by glandular or columnar epithelium that it does its damage. We also have begun to believe

1. Read before the Section of Obstetrics, Buffalo Academy of Medicine, January 28, 1902.

that where gonorrheal infection destroys one tube it also infects the other; that is, that it is always bilateral. We also know how prone such an infection is to cause pyosalpinx or at least occlusion of the tube and such disintegration of the tubal walls as to render them useless for any normal function. For instance, I have never heard of an undoubted and well authenticated instance where a woman who has had gonorrheal salpingitis has subsequently conceived and borne a child. The question then is whether there is any possibility of checking this infection once it has passed outside the uterus, or are the tubes doomed? Now it is a significant fact that we can open the posterior cul-de-sac, remove ectopic sacs, ovarian cysts, sever adhesions and drain with gauze, without subsequent pregnancies being prevented or interfered with. Therefore a pelvic drainage is not damaging to the functions of the ovaries and tubes. We have also shown that such incision of the lowest pouch of the peritoneum is devoid of danger. It is equally well understood that the invasion of a locality by pyogenic cocci depends for much of the damage it can do, upon retention of the products of inflammation. In other words, a free escape of the results of the inflammation as fast as they are produced is inimical to the progress of the inflammation, and that the latter does not proceed to that degree which it would reach were the discharges retained. The tissue-resistance and repair are greatest where drainage is best. That I believe is axiomatic.

For many years I have felt the necessity of placing gonorrheal ovaries and tubes under the benefits of these laws. Can we through the abdomen secure such good drainage of acutely inflamed gonorrheal tubes? If we attempt it through the abdomen is there not risk of producing a more general infection of the peritoneum? This conservative work upon inflamed tubes at the very beginning of the infection, for the purpose of limiting the infection and preventing pyosalpinx, I am most enthusiastic about. But I believe it is useless unless tried through the vagina, and worse than illogical if attempted through the abdomen.

Let us leave the instance of gonorrhea and pass to acute sepsis, the other most frequent cause of suppuration in tubes and ovaries. I believe it is proven beyond doubt that this form of infection always follows some trauma inflicted upon the uterus; therefore, a raw surface is necessary for its inception. Why? Because sepsis travels to and produces lesions in remote organs

not by direct continuity of lining membranes, but through the medium of the lymphatics. It in this way has a tendency to spare the essential structures of the tubes, and pyosalpinx may be termed an indirect result of this infection. Again the question arises, cannot something be done to arrest sepsis in its course, or is it better to let the patient alone? If drainage is of benefit in the less virulent cases of gonorrhea, does not the experience of all of you tell you that in other parts of the body, the flesh, the joints, the serous pleural cavity, it is of inestimable value and often as a sole agent is curative.

I have instituted certain experiments with the assistance of the pathologists. We have examined the uterine discharges in septic cases, we have opened the peritoneal pouch and from that have collected fluid, and we call septic for the purpose of this discussion only those cases in which streptococci are found in the peritoneal cavity. After subjecting these cases to a certain line of treatment we have removed and examined the dressings.

It is significant that in no instance have we failed to destroy the causative streptococci and in no instance has death ensued where lesions in remote organs have not been present at the time of the operation. Furthermore, very many of these women have conceived and borne children. We have succeeded in checking the sepsis and a restoration to physiological activity has resulted. Such are the results I have found to follow my treatment through the vagina of acute septic conditions. I would ask you whether in cases of acute septic salpingitis and peritonitis it is advisable to open the abdomen for purposes of merely treating the infection?

Possibly you have not asked me here to discuss this phase of the subject, but those cases in which the sacculation of pus has already taken place. Let us further classify these cases and their treatment. We have those in whom we perform a merely evacuative operation and those in whom we seek a restoration to health by the removal of diseased structures.

Many of you will recall the days when we used to feel large pus foci reaching to the abdomen; how we would pass down to them probes or needles seeking to furnish a very small channel through which a few days later we could evacuate the pus extraperitoneally. In no day of the past or present has any surgeon ever succeeded in evacuating through the abdomen such pus pockets unless he did so by rendering the tract extraperi-

toneal. But how unfortunate the results usually were. Only in the case of broad ligament abscess were the results anything like satisfactory. Furthermore, the entire length of such drainage tracts were infected and all the organs touching them were involved. The vagina does not absorb pus. Pelvic pus is below the pelvic brim, usually completely locked in. To evacuate it through the vagina is to let the abdominal cavity alone; is to secure escape of the pus at the lowest point and through a natural drainage tract which does not become infected by the discharges.

But you will ask me to pass to the question of removal of pus foci. So far as gonorrheal pyosalpinx is involved, I have to again express my belief that it is always bilateral though of differing degree on the two sides. Therefore the indication is to remove the adnexa of both sides. But would you leave the uterus? Gonorrheal endocervicitis has been shown to be one of the most difficult diseases to cure. The uterus robbed of its supports may become displaced; it is forever becoming reinfected and is a constant source of infection to others. Therefore, whenever I remove the gonorrheal adnexa I take away also the uterus. This being my position, the only question is how the operation shall be done. I find it easier for me and safer for my patients to remove a purulent mass through the vagina, than through the abdominal cavity between the abdominal contents and through an abdominal incision which I hope will unite properly.

But in septic pyosalpinx and ovarian abscess the lesions are very often unilateral. To successfully remove a pus tube we must dig it out of the cornu. It will not suffice to tie it close to the cornu any more than to so treat the suppurating vermiform appendix. Can this be done through the vagina? Undoubtedly not. I am therefore an uncompromising advocate of abdominal section for the removal of unilateral pyosalpinx and ovarian abscess. How frequent this is I do not know. Surely not in 10 per cent. of the cases. But in all cases of bilateral septic tubo-ovarian suppuration I ignore the so-called value of the uterus and perform vaginal ablation.

But we have found that these advanced septic cases follow abortion and labor, conditions in which the uterus is large. Large uteri may reach above the pelvic brim and suppuration about these is apt to lead to important abdominal lesions, such as appendicitis. When such complications are found to exist

we must undoubtedly approach the case from the abdominal side.

So then, gentlemen, we find that as an operation to prevent suppuration and check septicemia, the vaginal section stands alone.

As an operation of a purely evacuative character, again vaginal section is the choice.

As a procedure seeking the removal of uterus and both tubes the vaginal operation is far superior to abdominal section, except where high abdominal complications are found.

For the removal of one purulent set of adnexa, there is no operation equal to the abdominal, and the vaginal operation is not to be thought of.

These are my views, and they are substantiated by my experience in their application.

But the great question is, why let suppuration occur? Blameworthy indeed is he who nowadays can sit idly by and see an infection running riot among a woman's most precious organs. As blameworthy as he who would permit a fulminating appendicitis to destroy life without an effort to save. Much criticism is heard of him who removes great gross pockets of pus, "thus ruining the woman." Is not the greater measure of this blame to be laid at the feet of him who permits them to form?

Nowhere else in the body would one dare to adopt such a policy of procrastination, and it is time that we seek answers to these two questions: can suppuration be prevented, and how?

To my almost complete satisfaction I have answers for them, and they are sufficiently indicated in what I have said. It rests with some one to discover that agent which will destroy the gonococcus without injuring the pelvic tissues. My use of iodine compounds I find kills the streptococci.

We have passed far beyond the technique of operations and mortality. It is the morbidity we must in future control. The man who first sees these cases is the one we must instruct and appeal to; for upon the first treatment depends the fate of the involved organs.

Comparative Merits of Vaccination—Old and New.

By JOHN HAUENSTEIN, M.D., Buffalo, N.Y.

THE literature of smallpox and vaccination can be counted by the wagon load, and yet I cannot forego the temptation of adding one mite more to its bulk.

About a generation ago or less, a phantom made its appearance in the realm of smallpox and vaccination, which seemed so portentous as to terrify many physicians, for they viewed the monster as the coming syphyliser of mankind. Thereupon a hue and cry was heard against vaccination with humanised virus, although it had been considered one of the greatest blessings to man for nearly two-thirds of a century, as a safe and reliable preventive of smallpox. The result was the introduction of the vaccination with bovine virus, and since it was sometimes difficult to procure fresh humanised virus and a little troublesome, whereas bovine virus was as easily procured as 10 cents worth of candy from a candy store, it was readily adopted.

Vaccination with bovine virus having been in use a number of years, in fact so long already that the great majority of physicians now practising in this city have no recollection of the vaccination with humanised virus when used exclusively in this locality, and consequently have had no opportunity to witness a comparison of the merits of the two.

But the tempest which for a time caused such dire and portentous apprehension, based largely upon an imaginary conception, begins now to calm and a reaction commences to be perceptible, although as yet confined to the thoughtful and noiseless, but already numerous workers in the profession.

I quote from an exhaustive article written by Samuel W. Abbott, although a pro-bovine virus partisan, in the Reference Handbook of the Medical Sciences, which serves me as text in part of what I will say:

Reasons for preferring bovine virus stated by physicians, in 1881-1882: Freedom from transmitting other diseases; because of popular prejudices; greater protective power; greater uniformity of result; greater certainty; convenience.

Reasons stated for preferring humanised virus: Greater uniformity of results; less severe local and constitutional effects, with equal or greater, or proved protective power; greater promptness of action; greater reliability; freedom from serious complication.

I will in the following remarks endeavor to show up some of the weakness of the laudatory reasons for bovine virus vaccination.

The French Academy, in 1830, proclaimed:

As regards the communication of infectious or contagious diseases: Vaccinate without fear, for the vaccine virus taken from subjects afflicted with complaints susceptible of communication by contagion, such as syphilis, does not convey such germs in any case.

However, this proclamation, some years later, when the opposition mentioned appeared and terrified them, was reconsidered, found to be a little too bold, and changed.

I quote again from Abbott's article in the Reference Handbook:

Dr. Seaton, after carefully revising the different cases on record said of them: none of the alleged cases, then, have established in my opinion, that syphilis has ever been imparted in due and proper performance of vaccination with unmixed lymph of a genuine vaccine vesicle.

Again, "Dr. Foster, in his report to the American Public Health Association, also gives a list of experimenters who have purposely vaccinated with lymph from syphilitic vaccinifers in order to test the question of possibility of transmission, in over 300 vaccinations in every case the attempt to transmit syphilis was unsuccessful.

The aforementioned observations and experiments lead me to infer that the realm of the bugbear of syphilis and other infectious diseases which were assumed to be communicable by vaccination with humanised virus, has been successfully invaded and overcome.

The advocates of vaccination with humanised virus are now prepared to relate a few comprehensive truths, and arraign and prefer charges against the pro bovine virus partisans, based upon demonstrable facts and not upon hypothesis.

Quite a number of physicians in this city who had ample opportunities to witness the immediate results of bovine virus vaccination, have informed me of their observations and conclusions. They tell me that in schools where a number of children are sometimes vaccinated, who are to present themselves subsequently at a certain time for inspection of the vaccine results, a very large number showed a blurred and indistinguishable eruption, having a resemblance in some cases to what used to be called *crusta lactea*, observed at times on the heads and

faces of infants, a variety of eczema; or an eruption such as would puzzle a dermatologist to classify. Other physicians have reported cases of destruction of the tissues to a considerable depth by sphacelus or gangrene. It has also been observed in many cases that phlegmonous erysipelas, swelling of the whole arm resulted. It is also known that children have died in this city from the effects of vaccination, and an English physician goes so far as to publish a statement that every week there is a death reported from vaccination in England. This statement, however, might be accepted with some allowance.

That cases may and doubtless have occurred of bad results and even deaths when vaccination with humanised virus was exclusively in use can be admitted, the most inconsiderable laceration of the skin may in rare cases result in poisoning of the blood, it is the frequency of such occurrences that turns the scale.

In consideration of the above mentioned facts of bovine virus vaccination, is it strange that some physicians are reluctant to vaccinate with the virus now in use, and if they can honorably escape the responsibility, will turn the subject over to some one else? Moreover, is it not plain why so many persons should be averse or apprehensive and even dread to be vaccinated when required?

I have vaccinated many thousands with humanised virus during my life with results far more satisfactory as compared with the above observations. I vaccinated almost invariably from the inspissated lymph or crust, for I could never comprehend the sophistry of preference of vaccination from arm to arm. Then we had no fears of germs communicating infectious diseases for bacteriology was yet an unknown stranger to us. Such apprehensions were never entertained by any one when vaccination with humanised virus was the exclusive practice, and how simple and harmless it was, one might infer from the fact that I was permitted to vaccinate when yet a boy, about 63 years ago. I vaccinated my first born child within twenty-four hours of its birth for fear of infection from me, having quite a number of small-pox patients on hand. To-day some anxiety would be felt as to its effect on so young a subject.

The almost invariable result was a pustule with an areola around it, beautifully picturesque, if I may be permitted the expression; only in very rare cases, and these in subjects of a marked strumous habit, would a blurred or indistinguishable eruption result.

In 1848 we had quite an epidemic of smallpox in this city, considering its limited population at the time, and I had a number of the smallpox patients to visit daily. The health authority at that time was rather lax in the enforcement of sanitary rules and consisted in almost all cases in a card with the name "smallpox" nailed on the house occupied by the patient; only exceptionally the afflicted, who had no relatives or friends to take charge of him, was sent to the pesthouse.

When called to a smallpox patient the first thing I did was to assemble all the occupants of the house in which I found the patient and then vaccinate them all with humanised virus, for we had no other at that time, and as soon as I could detect the least redness on the vaccinated spot, I was so confident that I could guarantee the subject against an attack of smallpox.

It is hardly necessary to expose the weakness and futility of "the reason for preferring bovine virus" which relates to "greater uniformity of result, greater certainty." My experience of vaccination with humanised virus in the above mentioned epidemic of smallpox, convinced me of its absolute "uniformity of result and certainty," and my reliance and confidence remain unshaken to this day. I am equally convinced that bovine virus has no claim to preference, and I doubt whether it is the equal of humanised virus.

That virus taken from a calf or heifer will not communicate syphilis, is self evident, that it has been and can be conveyed with humanised virus, has not been proved and demonstrated satisfactorily, since the evidence of the charge is largely circumstantial and hearsay, and the witness the laity, and if a case could be incontrovertibly substantiated, it would doubtless show upon investigation gross carelessness and negligence on the part of the vaccinator.

Duty requires a vaccinator to be conscientious in taking lymph from a vaccinifer, and lymph taken from a healthy child of healthy parents, the impossibility of the conveyance with it of syphilitic or any other infection must be apparent.

The claim of "greater protection power" of bovine virus vaccination in the face of past experience, is simply absurd, for at no time have reports of epidemics of smallpox in so many parts of the world been more damaging to such claim as now. It required doubtless many years after Jenner introduced vaccination before it was generally adopted; however, in whatever country or locality established, there is no evidence at command

that epidemics of smallpox prevailed oftener then than now with bovine virus vaccination and I much doubt if as often, notwithstanding that our vaccination was, formerly, considered a protection for life and revaccination was not considered necessary until in comparatively recent times.

There is no evidence that the technic of vaccination has been changed in recent times, to which part of the bad results could be attributed, yet since vaccinations are not always, nor have they always been, performed with much precaution, it might be considered a service to state the observation of a physician of large practice, who tells me that since he lacerated the skin not deeper than to the corium, or perhaps more generally comprehensible, very superficially, he had better and more satisfactory results.

It remains to be said that genuine vaccination is an absolute protection against smallpox, whatever may be said by antivaccinist or medical cranks with their sophistries to the contrary, for it has saved millions of lives since its introduction. And if general vaccination could be strictly enforced upon the entry and first appearance of a case of smallpox, no isolation, no pest-houses would become necessary and thousands could be saved to a community.

Wernher zur Impffrage (on the question of vaccination) says:

Before vaccination smallpox had become a perennial disease which never entirely ceased in one year, and every 3 to 5 years became a great epidemic. In non-epidemic years 1-10 of all mortality was caused by smallpox; in epidemic years one-half.

I would hail with delight the reintroduction and adoption of the old method of vaccination with humanised virus, and that it can again be introduced with virus long ago in use is unquestionable, for there are many localities yet in Europe, where humanised virus is used, exclusively, and from which places it might be imported, if necessary.

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Pemphigus.¹

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THE word pemphigus, derived from the Greek pemphix, signifies a bladder or blister. The disease pemphigus has for synonyms pompholix, febris bullosa, phlyctena, bulla, febris vesicularis, hydatis. It is characterised by the formation of blebs or blisters, oval, or round in form, on the external surface

of the body and mucous membranes, appearing singly or in groups. The blebs contain a fluid which, on their bursting, dries into scabs and crusts, at first yellowish and then brownish in color.

Dermatologists have divided cases of this disease into various classes, each class being named according to some peculiarity of the cases placed under it. Martin, in his work published in 1829, enumerated 97 forms of the disease. Some of the more prominent of these classes are as follows, viz.: *P. gangrenosus*, in which there is a sloughing and gangrenous condition at the base of the blebs; *P. diutinus*, a very chronic form in which there appears daily, or every few days, a new crop of bullæ; *P. solitarius*, a form in which a single bulla appears at one time, to be followed on its disappearance by another; *P. foliaceus*, a form in which the bullæ leave behind large scales; *P. pruriginosus*, a form accompanied by intense itching; *P. hemorrhagicus*, a form in which a bloody exudation occurs in the bullæ; *P. vegetans*, a form in which the site of the bullæ becomes covered with vegetating masses, fungoid in appearance.

All the cases suitably arranged under these or other classes which have been made, may be properly divided into two classes, acute and chronic. By some observers the existence of acute pemphigus is denied. It is said to be extremely rare in adults.

Hebra,¹ the celebrated dermatologist of Vienna, denied its existence, as did also Willan and Bateman.² Hensch³ believed that as a specific disease acute pemphigus did not exist, that the condition so called is due to certain deleterious products in the blood. Of late years too many cases of acute pemphigus, both in adults and children, have been noted and described by careful and experienced investigators to reasonably doubt its existence.

Hyde⁴ does not believe in such a disease as pemphigus. He regards it as a symptom of various diseases. Although a pemphigoid eruption occurs in several diseases and under many different conditions, it is true that pemphigus has distinctive characteristics which constitute it not merely a symptom but a disease. It presents a distinct clinical picture which does not represent any other disease. Blebs or blisters or bullæ appear as a concomitant of eczema, ecthyma, rupia, impetigo, urticaria, scabies, as a result of insect wounds, of certain medicines, taken internally, of the external application of some medicines, but in all such cases persistent inquiry will disclose the origin of the bullous eruption.

The blebs of pemphigus vary in size from a pea to half a hen's egg and sometimes cover an even larger area. They contain a fluid which is generally serous, sometimes purulent, sometimes sanguinolent. They may appear upon any portion of the body, but are seldom seen on the face, palms of hands and soles of feet. Sometimes they are scattered over the whole external surface and are so thickly crowded together as almost to completely envelope the body. Sometimes only a few are present simultaneously, and in certain cases only a solitary bleb can be found. In some cases so rapidly are they developed, that a score or two scores or more new ones will make their appearance in a single night.

The chronic form of the disease is found almost exclusively in adults. Children seldom suffer from chronic pemphigus. The chronicity varies in duration from a few months to a score or more of years. Addison⁵, of Guy's hospital, reports the case of a girl 17 years of age, who had suffered from the disease since birth. A case is reported by Beevor⁶ of a female 25 years of age, who had been the subject of the disease since two weeks old. A male patient in M. Bielt's⁷ ward, 30 years of age, had been affected with pemphigus from infancy.

The ordinary chronic pemphigus, frequently termed *P. vulgaris*, is generally observed in old people who have become debilitated. De Ricci⁸ cites a case in a male over 80 years of age. Sometimes it begins with a slight febrile disturbance and sometimes without any excess of temperature.

Usually there is a feeling of malaise, and within a few hours or a day or two on some part of the external surface of the body red points appear on which blebs arise, sometimes few, sometimes many. They may or may not be surrounded by an areola. A new crop may appear each day or after the intervention of several days. A slightly feverish condition is apt to occur at the advent of each successive crop. The blebs, dry in a day or two and leave behind upon an ulcerated base a scab or crust which falls off in a few days, leaving a dark-colored pigmentation. Not infrequently the eruption is accompanied by burning and itching sensations which are almost intolerable, compel the patient to be divested of all clothing and take to the bed. At times the eruption appears in the mouth, on the palate and pharynx, in the vagina, on the conjunctiva and mucous membrane in other parts of the body. An interesting and unusual case of chronic *P. vulgaris* of the mouth and

epiglottis has been reported by Dr. Lewis H. Miller⁹. The patient was a male, 72 years of age. The eruption affected only the mouth and epiglottis for over twenty months.

Gasetti¹⁰ found on record twenty cases in which the conjunctiva was affected and in every case complete and irreparable blindness occurred by transformation of cornea and conjunctiva into cicatricial tissue. Lang¹¹ has reported two cases of conjunctival pemphigus; one was the case of a woman 52 years of age; in the other case the eruption was present on other parts of the body and could be produced by a vigorous shake of the hand.

This symptomatic picture of chronic pemphigus may continue for many years, the disease at times almost entirely disappearing and suddenly breaking out with renewed violence. Sherwell¹² reports a case of *P. foliaceus*, which relapsed eleven years after recovery. It recovered from the relapse.

The patient may die from exhaustion caused by the disease or from some intercurrent affection.

The form of chronic pemphigus termed *P. vegetans*, was first recognised and described by Neumann¹³. Hyde¹⁴ was the first to report a case in the United States. This form is exceedingly rare and but few cases have been recorded. After the rupture of the bullæ, which at first resemble those of other forms of pemphigus, fungous growths appear on their site, rise above the surrounding surface and secrete a muco-purulent fluid which is very offensive. Crocker¹⁵ reports a typical case of this description in a woman 43 years of age. She died after three months. The bullæ appeared not only on the external surface but on the oral mucosa, conjunctiva and vulva where there was extensive denudation. In some cases suppurative onychitis of fingers and toes has occurred resulting in a shedding of the nails. In such severe cases the disease is uniformly fatal.

P. foliaceus is another chronic form of the disease. This form is characterised by the production of large scabs or squamæ from the bullæ. The blebs appear in successive crops and become confluent. Oftentimes there issues from them an offensive odor. These scales vary in size from $\frac{3}{4}$ of an inch to 2 inches in diameter. It is an extremely rare form of pemphigus. Flaccidity is characteristic of the bullæ. They are not distended nor tense. Often they are so ill-defined that the epidermis is hardly raised from the tissue beneath it. Their contents, at first clear or lactescent, become purulent or sanguinolent. The crusts which form after the rupture of

the bullæ are attached by their center to the underlying tissue while their edges remain free. The eruption spreads until it covers the body. The mouth and throat are affected. Contractions on the face may produce ectropion, followed by conjunctivitis. Ulcerated surfaces are deep. Palms and soles become infiltrated and fissured. Nails become distorted and are shed. Hair of scalp and beard falls out. There are sensations of burning, smarting and soreness. This form of pemphigus is said to be more frequent in women than in men. It is fatal in a large majority of cases.

Munro¹⁶ and Swarts report a case of *P. foliaceus malignus* in a woman 37 years of age. The blebs finally spread over the whole body and presented a wrinkled and flaccid appearance. Although the progress of the case was regarded as favorable the patient died from exhaustion after eighteen weeks of treatment.

The acute form of pemphigus occurs almost exclusively in children, and hence has been called *P. neonatorum*. Indeed, some authors declare that the acute form is never seen in adults. Well-marked acute cases in adults have been reported by several eminent dermatologists. It is generally acknowledged, however, that such cases are rare. M. Haroud¹⁷ reported two acute cases in the Lyon Medical of August 3, 1873; one in a young man 17 years of age, and the other in a girl 14 years of age. Izett W. Anderson¹⁸ saw an acute case in a male adult negro which followed the eating of a semi-putrid conger eel. Duckworth¹⁹ reports a case in a railway guard 54 years of age. Death took place in nine days. Allen²⁰ reports a case in a man 33 years of age which lasted a month. Sparks, Payne and Southey²¹ have recorded cases of it. Erik Pontoppidan²² states that he saw 20 cases in adults in a single year.

The children in whom it most frequently occurs are ill-nourished and cachectic. It sometimes occurs, however, in children who are healthy. Cases of the latter class almost uniformly have a favorable termination.

In the severe cases of children there is an ichorous discharge from the base of the bullæ, followed by sloughing and gangrene. Such cases are often styled *P. gangrenosus*, and are developed in the first three years of life in children who are poor and live in moist localities. Sometimes the gangrenous form destroys the external ear and extends into the auditory canal, sometimes into the eyes and destroys the sight.

The acute form of the disease in children may begin with or without febrile symptoms. The blebs sometimes form before birth, sometimes appear within a fortnight after birth. Any part of the body may be affected, but the lower parts of the trunk, which are apt to be uncleanly, are most likely to suffer. The face, hands and feet are often free from the eruption. The conjunctiva may be affected and also the buccal mucosa.

In some instances the disease is hemorrhagic. In favorable cases it completes its course in three or four weeks. The fatal cases occur in children who are ill-nourished, live in an unhealthy environment and are subjected to some kind of infection.

In adults the acute form may be marked by febrile disturbance the same as in children. The bullous eruption may be sparse or abundant, in some cases covering the entire body and attacking the mucous surfaces.

A diphtheritic exudation occasionally is found on the ulcerated surface under the bullæ. Bulkley²³ has described a case of herpes gestationis which is said by Weyl to be an example of acute P. adultorum.

The rarity of pemphigus has been shown by statistics from various sources. According to statistics of the American Dermatological Association²⁴ there were 14 cases of pemphigus out of 16,863 cases of skin diseases. White²⁵, of Boston, reports that he met 15 cases of pemphigus in 5,000 cases of skin disease. McCall Anderson²⁶ states that out of 24,891 cases of skin disease only 53 were pemphigus. Bulkley²⁷ reports 17 cases of pemphigus out of 8,000 cases of skin disease in this country. In 7,000 cases of sick children in Bellevue Hospital there were only two cases of pemphigus.²⁸ The American Dermatological Association²⁹ has reported that 30 cases of pemphigus occurred in the United States and Canada in 1894.³⁰ In General Hospital, Lying-in Hospital and Foundling Hospital of Vienna, there occurred annually one case of pemphigus in every 10,000 adults and one in every 700 infants at the breast. Hebra³¹ states that he had seen 50 cases of pemphigus at his clinic. He believed that the disease appeared 14 times as frequently in infants as in adults.

Etiology.—Concerning the etiological factors of pemphigus a variety of opinions has been recorded. The discovery of the *basal* cause may be regarded as quite doubtful. Sex does not seem to exert a marked influence as a causal factor. Duhring³² states that both sexes suffer from it in the same proportion.

Robinson³³ states that *P. foliaceus* is more frequent in women than in men; he also states that *P. vulgaris* occurs equally in both sexes. Hebra thinks that the disease is about equally divided between the sexes.

Hardy³⁴ has described a form of pemphigus which he has seen in females from 14 to 20 years of age, who were unmarried and were suffering from irregular menstruation. Others have mentioned a *P. hystericus* occurring in hysterical females of the same class. Duncan³⁵ mentions a case of recurrent *P. pruriginosus* which occurred in an unmarried woman 25 years of age, immediately after the checking of the menses at two successive periods.

Hardy³⁶ and Wilson have observed cases of *P. pruriginosus* in pregnancy.

In Wilson's case it occurred in every pregnancy. Cases are related by Barnes³⁷ in which pemphigus occurred during several successive pregnancies. It is related of a woman 37 years of age that she suffered from pemphigus after four of 12 of her confinements.

Cases are cited in which bullæ appear after the ingestion of certain medicines, as iodide potassium, Donovan's solution, Fowler's solution.

In a case of acute pemphigus of the hands which came under Startin's³⁸ care the patient, a man 32 years of age, had taken Fowler's solution for three months and followed it with Donovan's solution. On omitting both medicines he rapidly improved.

Style³⁹ believes that two cases of acute pemphigus which he saw in children, respectively five and two years of age resulted from the inhalation of sewer gas.

Owen⁴⁰ relates the case of a girl 10 years of age who had a good family history. After a very hot day and drinking a large quantity of water the soles of the feet were studded with blisters. Blebs also appeared on palms of hands.

Some writers hold the opinion that infantile pemphigus is syphilitic in its origin and others are opposed to this view. It is probable that pemphigus is a complication of some cases of infantile syphilis. It is also probable that some cases of infantile pemphigus have no relation to syphilis. Staub⁴¹ believes that pemphigus of the new-born is most frequently the result of a puerperal infection in the mother. He cites two cases in which the mother had a severe pyemic puerperal fever

accompanied by a pemphigoid eruption; the child had a typical *P. neonatorum*.

The questions: Is pemphigus epidemic? Is pemphigus contagious? have received contradictory answers from different observers. The form *P. gangrenosus* of children has prevailed as an epidemic in Ireland⁴². Nelligan⁴³ believes that the chronic form appears as an epidemic. Ziemssen⁴⁴ says that the form which occurs in children is sometimes epidemic. He thinks it undoubtedly contagious. Scharlan⁴⁵ in 1841 reported an epidemic in a family. In Hospice des Enfants Assistés⁴⁶ there occurred an epidemic of sixteen cases in children whose ages varied from two days to thirteen months. Behrend⁴⁷ believes that in the new-born the disease occurs almost exclusively as an epidemic, so that the theory of contagion in such cases is warranted. Padora⁴⁸ reports an epidemic which occurred in Pavia. Fomolle⁴⁹ reports an epidemic in la Charité, lasting two and a half months. During this time there were 77 births and but few of the children escaped the disease. Contagion by direct contact seemed evident in one case. A similar epidemic occurred in the Lying-in Hospital in Leipzig.⁵⁰ Ballard⁵¹ reports a case in which pemphigus was communicated from a cow to a human being. Beyerlein⁵² believes the disease contagious and generally epidemic when it affects not only infants but older children and this infantile form is sometimes transferred to adults.

Salvage⁵³ reports the case of a nursing child on whom bullæ were observed three days after birth. Fresh bullæ appeared daily for fifteen days. Four days before bullæ ceased to be formed on the child several bullæ were observed on the breasts and forearms of the mother. Apparently the mother's case was the result of contagion.

Sturges⁵⁴ reports the case of a male child on whose fingers, six days after birth, bullæ appeared, followed in three or four days by bullæ on the face. Afterwards bullæ appeared on four or five other children of the same family, on the father and on the nurse, who attended the mother.

Lattey⁵⁵ reports 4 cases in children in which the disease was probably contagious; one aged $2\frac{1}{2}$ years, one 7 years, one 7 months. The fourth, who was 9 years old, was the first attacked and became convalescent before the eruption appeared on the others. An epidemic is said by Tilbury Fox⁵⁶ to have taken place in the General Lying-in Hospital in London, England. He further states that in its epidemic form the disease "appears

to be the result of acute blood poisoning." Hebra⁵⁷ did not believe in the contagiousness of pemphigus. He inoculated himself without effect. Neither Duhring nor Robinson⁵⁸ believe in its contagion.

The reports of exact observers to the effect that the pemphigus of children is epidemic and contagious are too numerous to permit us to doubt that contagion is an etiological factor of the disease.

Henoch⁵⁹ states that he never saw a case in which infection could be proved. Shillitoe⁶⁰ describes a case in a girl 19 years of age which, on bacteriological examination showed a diplococcus in the fluid of the bullæ at one stage of the disease and at another stage, streptococci and staphylococci.

L. Emmett Holt⁶¹ reports a case of *P. neonatorum* associated with a general infection by the staphylococcus pyogenes. The infant was 9 days old when admitted to the hospital. No history of syphilis in the parents and other two children could be elicited. Bullæ from $\frac{1}{4}$ inch to 2 inches in diameter spread over various parts of the body. Cultures from one bulla on the thigh and another on the neck showed staphylococcus pyogenes aureus. Pus organisms were found in pus from the eyes but no gonococci.

Cultures from the lungs showed staphylococcus pyogenes aureus and bacterium lactis ærogenes; from the spleen and left kidney, staphylococcus longus; from the liver, streptococcus longus and staphylococcus pyogenes aureus. Cultures of staphylococcus pyogenes aureus were injected into a mouse which was found dead in 24 hours. This organism was obtained from the heart's blood of the mouse and the site of injection. The child died 60 hours after admission to the hospital. The general infection in this case is quite noticeable.

The question of heredity of pemphigus has occupied the attention of a few observers. Robinson⁶² states that in some cases it seems to be hereditary. An inherited form has been described by Goldschneider, Legg and others.⁶³ Kaposi⁶⁴ relates an inherited case in which patient's mother, sister, mother's brother and some of latter's children were affected with the disease.

According to Vierordt,⁶⁵ pemphigus sometimes rests on a neurotic basis and may be regarded as a disease of the peripheral nerves. Hyde⁶⁶ asserts that sufficient proof has been adduced to warrant the belief that changes in the trophic nerves and nervous

centers are causes of the disease. Lesions of the spinal cord have been followed by a bullous eruption. It is true, however, that in such cases the blebs do not resemble in all respects those which occur from other forms of pemphigus. It is also true that in fatal cases of pemphigus the changes in the spinal cord are not uniform in their site and appearance. Kaposi⁶⁷ and Weiss by autopsy of 9 bodies dead from pemphigus found changes in the cord in only 1, diffuse sclerosis. Is it not quite probable that the cutaneous and nervous lesions of this disease are due to toxic agents?

Järisch⁶⁸ found swellings of the processes of ganglion cells and interstitial fibrous deposits. Déjerine and Leloir⁶⁹ found in peripheral nerves changes due to degeneration. In 1882, Gibier⁷⁰ found bacteria in the contents of bullæ of acute pemphigus. He states that the microbes when mature were arranged in chaplets (a row of links in form of a rosary) each containing a series of joints. His observations were confirmed by Vidal and Roeser.⁷¹ In 1883, Riehl⁷² found both conidia and spores in the epidermic layer underneath the blebs of infantile pemphigus. In 1886, Demme⁷³ found cocci in the contents of the bullæ and in the blood. Thin,⁷⁴ of London, attempted to discover microörganisms in the contents of bullæ by different methods of staining and cultivation with negative results.

M. Déjerine⁷⁵ reported to the Paris Academy of Sciences a case of general paralysis. An eruption of bullæ appeared on the legs and arms. An examination after death showed sclerosis of lateral columns of spinal cord. Gray matter and posterior columns were healthy. By microscopical examination of skin and areolar tissue removed from the site of bullæ, "nerve tubes were found altered in structure and no trace of axis cylinder was discoverable." Déjerine⁷⁶ held the opinion that "the alteration of the nerve fibers extended from these peripheral ends to the trophic centers whereon the nutrition, as well of the cutaneous nerves as of the skin itself is dependent."

Vidal⁷⁷ has demonstrated that adults can be successfully inoculated from the contents of the bullæ.

Owen⁷⁸ believes that pemphigus is due to some cause acting through the nervous system, though exact cause is obscure.

Ziemssen⁷⁹ states that the inoculated secretion of the bullæ in from 24 to 72 hours shows a formation of vesicles attended by burning and redness. Roeser⁸⁰ always found micrococci in the contents of the bullæ. Tilbury Fox⁸¹ remarks that "pemphigus

would seem to be the result of vaso-motor disturbance and not of disorder of trophic nerves."

From this accumulation of recorded experiments and opinions no very positive conclusion can be drawn concerning the exact etiology of pemphigus. It is evident that certain bodily conditions are accompanied by an eruption of bullæ and a disease called pemphigus. It is extremely probable from testimony adduced that the disease is due to some microörganism which produces a degeneration of peripheral nerves and trophic centers.

It has seemed to the writer that facts in sufficiently large number have not been clearly and fully established to determine the primary cause of this disease. It may be a microbic infection. The investigations of Gibier point in that direction. It can hardly be doubted that the disease is partially due to either a functional disturbance or organic degeneration of the peripheral nerves. Back of these nerves as a causal factor may be a disorganised condition of nervous centers. It would be a rash and unwarranted declaration to state with positiveness the exact basic cause of pemphigus.

Chemical Condition of the Contents of the Bullæ.—Duhring⁸² states that the fluid is either alkaline or neutral; the older the fluid the more alkaline it becomes. He believes that chemical analysis of blebs, urine and blood has given no insight into the cause of the disease. Neumann⁸³ describes the bullous fluid as clear and yellowish at first, then cloudy and purulent. It lies between the two layers of epidermis.

Nelligan⁸⁴ states that the fluid is highly albuminous. Järisch⁸⁵ found serum, pus and epithelial cells in the blebs. Tilbury Fox⁸⁶ states that the fluid generally is at first transparent, then milky, sometimes sanguinolent from the outset; at first alkaline but becomes acid.

Diagnosis.—The bullous eruption does not constitute the disease. An eruption of bullæ may occur in several different diseases. It is, then, in most diseases simply an accompaniment of the disease and not a necessary part of it; in such cases its appearance is accidental. The disease pemphigus never occurs without the bullous eruption which appears in successive crops and never exhibits the characteristics of other diseases. The diagnosis is easy in its fully developed stage but difficult in its beginning and later stages.

When bullæ appear in a case of syphilis a syphilitic history and antecedents can usually be elicited. The eruption in such

cases is almost invariably in children and is present on soles of feet and palms of hands.

In eczema of hands the bullæ are formed by confluence of vesicles; pemphigus is rare on hands and fingers and skin is not infiltrated. In ecthyma cachecticum, the pustules are not true bullæ and ulcerations are deep. In rupia the bullæ are smaller and flatter than in pemphigus; contents are thick and dark and ulcerations deep. *P. foliaceus*, when the blebs become scaly, may resemble pityriasis rubra; in the latter there are no bullæ. In impetigo contagiosa the bullæ are never distended as in pemphigus but are flat. The former is a pustular disease. In bullæ of lepra there is usually cutaneous anesthesia. The blebs generally leave behind signs of atrophy on their bases. In herpes iris the eruption is rather vesicular than bullous and disappears more rapidly than the eruption of pemphigus.

Although bullæ appear in urticaria and erythema multiforme, these diseases are easily recognised by characteristic symptoms.

P. vegetans has sometimes been confounded with syphilis because the eruption in both diseases often appears about the ano-genital region and the eruption of *P. vegetans* resembles the condylomata of syphilis. Ulcerations in the mouth also occur in both diseases. In *P. vegetans* the lymphatic glands are not involved as in syphilis. The condylomata of syphilis rarely spread beyond the region adjacent to mucous outlets as does the eruption of pemphigus.

Scabies of infants and children, which sometimes is accompanied by bullæ, has a parasite which will determine the nature of the disease.

Bullæ may appear in other diseases than those mentioned, but such diseases have other symptoms which will readily distinguish them from pemphigus.

Prognosis.—In children the acute form generally has a favorable termination. It is apt to be fatal in children who are cachectic and ill-nourished. Children die from exhaustion, worn out from the irritative fever. The malignant form, characterised by severe and persistent fever, diphtheritic patches, ulceration, sloughing, as seen especially in children, very rarely ends in recovery. Robinson⁸⁷ regards the prognosis in children unfavorable if they are suffering from bronchial or intestinal catarrh, kidney trouble or hematuria.

In old people if the disease is general, prognosis is unfavorable.

P. gangrenosus is almost uniformly fatal. The distress occasioned by the burning and itching of *P. pruriginosus* is apt to lead to a fatal result. The toxic effect of the disease upon the general system may be shown by its influence on vessels and glands situated near the site of the eruption and thus septicemia may lead to a fatal ending. When the eruption affects the mouth and pharynx, mastication and deglutition may be performed with difficulty and lead to impairment of nutrition, which will invite a fatal issue. Pemphigus in adults almost always has a fatal termination, especially *P. foliaceus*. Hebra⁸⁸ believes that *P. foliaceus* invariably terminates fatally. Hyde⁸⁹ states that *P. vegetans* in the vast majority of cases is fatal, one or two only in about sixty cases having recovered.

The general condition of the patient should be a reliable guide in prognosis. In general it may be said that the more widely spread is the eruption, the larger and more deeply seated the bullæ, the older and more poorly nourished the patient, the greater is the probability of a fatal issue.

Treatment.—The treatment of pemphigus has been almost as varied as the mental inclination of the physicians who have treated it. To a large extent it has been experimental. Nearly all dermatologists have used both internal and external remedies. The treatment of the two forms, chronic and acute, should differ. The chronic form, occurring in old and enfeebled patients, demands tonic medicines and a nutritious diet.

Perhaps no one internal remedy for chronic cases has had more favorable consideration than arsenic. It is commended by Tilbury Fox.⁹⁰ Hutchinson⁹¹ has regarded it as almost a specific in such cases. He has not met with a single case of failure in a trial of the remedy for many years. Duhring⁹² considers arsenic the most valuable internal medicine in chronic pemphigus.

Allen⁹³ reports a case in a woman 45 years of age in which arsenic internally, and compound tincture of benzoin externally, performed a good service. Kaposi⁹⁴ reports that he could not obtain favorable results from arsenic. For *P. vegetans* and *P. foliaceus*, arsenic has been tried by different dermatologists without apparently any curative effect. Piffard's⁹⁵ treatment for *P. foliaceus* is arsenic in full doses. For chronic pemphigus Tilbury Fox⁹⁶ prefers quinine in full doses to arsenic. Duhring⁹⁷ highly esteems quinine as an internal remedy for chronic pemphigus, especially if the eruption is preceded by fever. Munro

and Swarts⁹³ report a case of *P. foliaceus malignus* in a woman 37 years of age, cured in 14 weeks by nutritious diet, quinine, Fowler's solution, syrup iodide iron internally, and externally bichloride solution 1 to 4,000, and zinc ointment. Neumann⁹⁹ believes quinine the only internal medicine worthy of consideration in the treatment of chronic pemphigus. Eames¹⁰⁰ reports a case that he cured with phosphorus internally. Hebra¹⁰¹ believes that no internal medicine is curative of the disease. He states, "I know of no way of curing pemphigus by giving internal medicine."

For local treatment in both acute and chronic cases a soothing and cooling powder should be used, as oxyd of zinc, starch, bismuth, calamine, lycopodium, mixed with some kind of antiseptic, as carbolic acid or boric acid; also a cooling and quieting wash, as lead and opium; also a soothing ointment, as borated oxyd of zinc. Secretan¹⁰² reports a case of the chronic form in an adult male cured by local applications of carbolised water.

In severe chronic forms of the disease the continuous bath has been used. Kaposi¹⁰³ kept a patient in a bath day and night for eight months, which resulted in a great amelioration of the symptoms. As a local application Hebra¹⁰⁴ regards cold water as the best remedy. He cured some patients by use of the continuous bath, keeping them immersed continually, one, 109 days; one, 76 days; one, 47 days; one, 26 days.

In acute forms of the disease the feverish condition should be subdued, and then tonics with quinine should be used with strongly nourishing diet. Mineral acids, cod liver oil and iron, arsenic, have also been used with good effect in acute cases, both in children and adults.

In all forms of pemphigus great care should be taken to remove all impurities from the system. Doubtless in the future when the cause of the disease has been placed upon a more scientific basis, treatment will be more successful and satisfactory. The fact that pemphigus is a debilitating disease and generally attacks the old and enfeebled or the young and poorly nourished, points to a general plan of treatment which is supporting and constructive.

The following record of a case of chronic pemphigus, ordinarily termed *P. vulgaris*, well illustrates a typical form of the disease and presents a plan of treatment which was followed by a favorable issue.

Mrs. — presented herself for treatment in June, 1899; 66 years of age; twice married; never been pregnant; health uniformly good; never had any skin eruption; always thin in flesh; of small stature. Inquiry could elicit no history of syphilis in her own nor the family of either husband.

Patient stated that in April, 1899, an eruption appeared on her back which was healed after the application of an ointment. On the patient's first call at the writer's office there was present on her lower extremities, mostly about the ankles, a profuse eruption, consisting of small ulcers and crusts of a dark color. No fever; bowels inclined to constipation; diminished appetite; a general appearance of not being well nourished.

The exact nature of the eruption was not diagnosticated. The treatment in the early history of the case consisted of preparations of iron and quinine and arsenic internally, and locally nitrate of mercury ointment, vaseline, simple cerate containing cocaine, witch hazel, as a cooling wash.

Late in the fall of 1899, the eruption having spread to the back, arms, thighs, body, palate, pharynx, forehead, the case having been recognised as pemphigus, and considerable anxiety being felt concerning its termination, a consultation was held with Dr. Ernest Wende, of this city, who advised pushing the arsenic to large doses and a borated and carbolised ointment of oxyd of zinc. This treatment was adopted. Arsenite of quinine was given three times daily, the dose being gradually increased from 1-50 to 1-5 of a grain. The eruption continued to spread till apparently not a square inch of the external surface of the body was free from it except soles of feet, palms of hands, face and portions of scalp. At times the itching and burning were intense.

In the early part of April, 1900, the ulcerated patches had become so numerous that the ordinary clothing could not be worn and the patient took to her bed. The bullæ came out in scores in a single night, many of them filled with a sanguinolent fluid. At this time the eruption was at its height. The arsenic preparation was stopped for a week and as a substitute 12 grains of quinine were given daily. This was followed by arsenite of potash, 3 times per day, 1-20 of a grain, the dose being gradually increased to 1-5 of a grain. The patient was confined to bed five weeks, during which time over the whole body was used a powder of talcum and boric acid, the mixture being 90 per cent. of the former and 10 per cent. of the latter. This powder in large quantities was gently rubbed upon the skin and the legs and arms enveloped in roller bandages. This local treatment was repeated every second day during the five weeks the patient was in bed and continued at longer intervals for a month thereafter. During this treatment the ulcerated surfaces were covered with a carbolised ointment of vaseline and lanolin.

During the summer and autumn of 1900 the patient was

kept on an arsenic and iron treatment with occasional alternations of quinine. The borated talcum powder was used on all the eruptive surfaces.

Throughout the case a generous diet has been advocated. Early in its history it was learned that a diet of meat had been largely ignored, and hence beef and lamb in various forms were frequently prescribed.

The first improvement in the case was noted soon after giving the twelve grains of quinine daily for a week. During the summer and autumn of 1900 there was a slow but manifest improvement. The remains of the old bullæ gradually disappeared and fewer new ones were formed.

At the present time, February 1, 1901, there has been no outbreak for several weeks; hardly a single bullous crust remains on the body. The patient is able to attend to all her ordinary household duties and goes wherever she wishes. Although not quite as strong as two years ago, she is free from pain and the pemphigoid itching and burning.

During the progress of the case there were three subacute attacks of gastro-enteritis, each attack lasting a week. It is possible that these attacks were induced by the long-continued large doses of arsenic.

Nearly two years have elapsed since the initial symptoms of pemphigus appeared in this case. It is the belief of the writer that to a dogged persistency in the use of internal and external remedies is due its successful outcome.

How long the present happy condition of the patient will continue is problematical. Chronic pemphigus sometimes occupies many years and has many remissions and exacerbations. Time only can determine whether this patient has been fully and for life delivered from the distressing remedy-resisting disease, chronic pemphigus.

BIBLIOGRAPHY.

1. Diseases of the skin. Hebra. Vol. 2, p. 364.
2. Journal of Cutaneous and Genito-Urinary Diseases, 1888, p. 121.
3. London Lancet, 1890, Vol. 1, p. 1190.
4. Journal of Cutaneous and Genito-Urinary Diseases, 1893, p. 498.
5. London Lancet, 1858, Vol. 1, p. 314.
6. London Lancet, 1889, Vol. 2, p. 1119.
7. Cazenave on the Skin, 2d. American edition, 1852, p. 120.
8. London Lancet, 1870, Vol. 1, p. 897.
9. New York Medical Journal, July 3, 1897, p. 1.
10. London Lancet, 1888, Vol 2, p. 527.
11. London Lancet, 1885, Vol. 2, p. 996.
12. Journal of Cutaneous and Genito-Urinary Diseases, 1889, p. 453.
13. Diseases of the Skin, 4th edition, Hyde, p. 395.
14. Diseases of the Skin, 4th edition, Hyde, p. 395.
15. London Lancet, 1889, Vol. 1, p. 531.
16. Journal of Cutaneous and Genito-Urinary Diseases, 1891, p. 332 and 423.
17. London Lancet, 1873, Vol. 2, p. 456.

18. London Lancet, 1873, Vol. 1, p. 875.
19. Braithwaite, 1885, Vol. 1, p. 62.
20. Journal of Cutaneous and Genito-Urinary Diseases, 1888, p. 123.
21. London Lancet, 1890, Vol. 1, p. 1190.
22. Journal of Cutaneous and Genito-Urinary Diseases, 1885, p. 220.
23. Diseases of the Skin, 4th edition, Hyde, p. 391.
24. Diseases of the Skin, 3rd. edition, Duhring, p. 252.
25. Diseases of the Skin, 3rd. edition, Duhring, p. 252.
26. Journal of Cutaneous and Genito-Urinary Diseases, 1888, p. 121.
27. Journal of Cutaneous and Genito-Urinary Diseases, 1888, p. 121.
28. Manual of Dermatology, Robinson, p. 238.
29. Transactions of American Dermatological Association, 1896, p. 65.
30. Diseases of the Skin, Hebra, Vol. 2, p. 375.
31. Diseases of the Skin, Hebra, p. 376.
32. Diseases of the Skin, 3rd. edition, Duhring, p. 252.
33. Manual of Dermatology, Robinson, p. 238.
34. Diseases of the Skin, 4th. edition, Hyde, p. 395.
35. London Lancet, 1881, Vol. 1, p. 53.
36. Cutaneous Medicine and Diseases, Wilson, p. 169.
37. London Lancet, 1887, Vol. 2, p. 858.
38. London Lancet, 1879, Vol. 2, p. 940.
39. London Lancet, 1889, Vol. 2, p. 791.
40. London Lancet, 1888, Vol. 1, p. 1131.
41. Journal of Cutaneous and Genito-Urinary Diseases, 1892, p. 483.
42. Cutaneous Medicine and Diseases, Wilson, p. 168.
43. Nelligan on Diseases of the Skin, 4th. American edition, p. 97.
44. Handbook of Diseases of the Skin, Ziemssen, p. 263.
45. Handbook of Diseases of the Skin, Ziemssen, p. 263.
46. London Lancet, 1889, Vol. 2, p. 807.
47. Archives of Dermatology, 1880, p. 77.
48. Archives of Dermatology, 1878, p. 83.
49. Archives of Dermatology, 1874-5, p. 154.
50. Archives of Dermatology, 1874-5, p. 154.
51. Handbook of Diseases of the Skin, Ziemssen, p. 264, foot note.
52. Archives of Dermatology, 1879, p. 285.
53. London Lancet, 1890, Vol. 1, p. 850.
54. London Lancet, 1886, Vol. 1, p. 140.
55. British Medical Journal, 1889, Vol. 2, p. 1150.
56. Skin Diseases, Tilbury Fox, p. 212.
57. Diseases of the Skin, Hebra, Vol. 2, p. 384.
58. Diseases of the Skin, 3rd. edition, Duhring, p. 252 and Manual of Dermatology, Robinson, p. 238.
59. London Lancet, 1890, Vol. 1, p. 1190.
60. London Lancet, 1898, Vol. 2, p. 1397.
61. New York Medical Journal, 1898, Vol. 67, p. 175.
62. Manual of Dermatology, Robinson, p. 238.
63. Diseases of the Skin, 4th. edition, Hyde, p. 395.
64. Diseases of the Skin, 4th. edition, Hyde, p. 397.
65. Medical Diagnosis, Vierordt, p. 581.
66. Diseases of the Skin, 4th. edition, Hyde, p. 396.
67. Diseases of the Skin, 4th. edition, Hyde, p. 397.
68. Handbook of Diseases of the Skin, Ziemssen, p. 266.
69. Handbook of Diseases of the Skin, Ziemssen, p. 266.
70. London Lancet, 1885, Vol. 1, p. 981.
71. Diseases of the Skin, 4th. edition, Hyde, p. 397.
72. Diseases of the Skin, 4th. edition, Hyde, p. 397.
73. Diseases of the Skin, 4th. edition, Hyde, p. 397.
74. London Lancet, 1885, Vol. 1, p. 981.
75. British and Foreign Medico-Chirurgical Review, 1876, Vol. 2, p. 479.
76. British and Foreign Medico-Chirurgical Review, 1876, Vol. 2, p. 480.
77. Archives of Dermatology, 1877, p. 157.
78. London Lancet, 1888, Vol. 1, p. 1131.

79. Handbook of Diseases of the Skin, Ziemssen, p. 263.
80. Handbook of Diseases of the Skin, Ziemssen, p. 263.
81. Skin Diseases, Tilbury Fox, p. 213.
82. Diseases of the Skin, 3rd. edition, Duhring, p. 253.
83. Neumann's Handbook of Skin Diseases, Bulkley's American edition, p. 190.
84. Nelligan on Diseases of the Skin, p. 100.
85. Handbook of Diseases of the Skin, Ziemssen, p. 266.
86. Skin Diseases, Tilbury Fox, p. 211.
87. Manual of Dermatology. Robinson, p. 240.
88. Diseases of the Skin, Hebra, Vol. 2, p. 372.
89. Diseases of the Skin, 4th. edition. Hyde, p. 396.
90. Skin Diseases, Tilbury Fox, p. 215.
91. Manual of Dermatology, Robinson, p. 240.
92. Diseases of the Skin, 3rd. edition, Duhring, p. 253.
93. Journal of Cutaneous and Genito-Urinary Diseases, 1890, p. 471.
94. Diseases of the Skin, 4th. edition, p. 399.
95. Therapeutics of the Skin, Piffard, 1831, p. 236.
96. Skin Diseases, Tilbury Fox, p. 215.
97. Diseases of the Skin, 3rd. edition, Duhring, p. 266.
98. Journal of Cutaneous and Genito-Urinary Diseases, 1891, pp. 332 and 423.
99. Neumann's Hand Book of Skin Diseases, Bulkley's American edition, p. 194.
100. British and Foreign Medico-Chirurgical Review, 1872, Vol. 49, p. 535.
101. Diseases of the Skin, Hebra, p. 396.
102. Braithwaite, 1889, Vol 1, p. 120.
103. Diseases of the Skin, 4th. edition, Hyde, p. 400.
104. Diseases of the Skin, Hebra, Vol. 2, p. 397.

118 PLYMOUTH AVENUE.

Deviation of the Nasal Septum.

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DEFORMITIES of the nasal septum are probably the most frequent of all the exciting causes of catarrhal inflammation in the nasal mucous membrane. A majority of the cases we examine for nasal trouble will show some deformity of the septum. Heyman claims that 90 per cent. of all the cases examined will show deformities, although Morell Mackenzie, in an examination of over 2,000 skulls, found a deviation of the septum in only 75 per cent.

P. Watson Williams says deviation of the septum may almost be regarded as its normal condition, for it is only in comparatively few persons that it is absolutely straight; nearly all nasal septa bulge slightly into one or the other nostril and a deviation becomes pathological only when it obstructs respiration. Zuckerkandl claims deviation does not exist before the seventh year, while others maintain they can be found at any age. Ingals says they may be found in new-born infants, and Jacob has demonstrated by showing anatomical preparations that such deformities exist in the fetus.

There is much difference of opinion in regard to cause, but the majority of observers are inclined to attribute it to injuries.

The symptoms complained of most are nasal obstruction, mouth breathing, dryness of nasal passages and mouth, nasal voice, and post-nasal catarrh. Bosworth says deformity of the septum probably more than any other single cause gives rise to attacks of epistaxis. The stenosis caused by deviation of the septum is a frequent cause of middle-ear disease and affections of the larynx and trachea, and if the deviation presses on the middle turbinated bone we have headache, paroxysmal sneezing with watery discharge, hay fever, asthma and other reflex neuroses. Holbrook Curtis has brought to the notice of the profession that anemia is sometimes due to the nasal obstruction and after relief of the stenosis, improvement took place in his cases to the extent of a regain of oxy-hemoglobin in some instances of over double the former amount.

Treatment of deviation of the nasal septum is necessarily surgical. In some cases where there is a thickening of the septum, the knife or saw will correct the trouble by removing the thickened portion, but in cases where there is a marked deviation without thickening, I believe Asch's operation to be the best.

There are a great many operations for correcting nasal deformity, but Asch's operation has been done a great many times by Asch and others, and has given very satisfactory results. Asch and others doing his operation use general anesthesia, but in my cases I have used cocaine, and in the last one used adrenalin to prevent hemorrhage. I believe there is a great advantage in using local anesthesia, as you can have the patient sit in a chair and you are able to see what you are doing, and in case of hemorrhage you have your patient in an upright position where you can work to better advantage; the blood is not running down the throat, perhaps getting into the larynx. However, since the introduction of supra-renal extract, or better still, adrenalin, nasal operations can be performed with little or no hemorrhage, and the cocaine will deaden the parts so much that they feel very little pain—no more than that caused by sawing off septal spur.

Preliminary operations are sometimes required in cases in which there is a luxation of the triangular cartilage from the columna. Polypi in the concavity should be removed and if

they exist on the other side they are probably behind the deviation, and cannot be reached until the deformity is corrected. The middle turbinated bone may be hypertrophied so as to interfere with the patency of the wider nasal fossæ after the septum has been brought back to a vertical plane, or it may interfere with the surgeon's efforts to push the septum back into the vertical position; such cases demand the preliminary removal, either partial or total, of the turbinated bone.

Asch's operation consists in making a crucial incision through the cartilaginous septum, breaking down by the fingers or forceps the bases of the segments thus formed, and the insertion of a hollow splint. This operation is equally effective in any form of deviation. Asch has devised several instruments which he uses to perform his operation, and if his method of operating is followed the result will be satisfactory.

I have operated five times on marked deviation of the nasal septum and have had good results in all but one case; that was my first. The patient was very timid and fainted while his nose was being examined. However, I managed to do operation and, as I had no hollow splints, used a tampon made of gauze and gave him instructions to come and see me the next day. The gauze came out the next day and he did not come to see me until the third day, and then he would not allow me to put another tampon in the nose. The result was that deviation resumed its former position. This was my only failure, and that was due entirely to the timidity of the patient. The other cases were operated upon in the same manner but instead of a tampon of gauze I used Mayer's modification of Asch's splint, which was removed every day and cleaned, and nose sprayed out and splint put back again. After the first week the patient can take the splint out daily and clean it and report to physician every two or three days for inspection until splint can be removed, which will be at the end of four or five weeks. Inserting the splint at first is quite painful in some cases; if so, it will be necessary to use cocaine spray before inserting it.

I have had no perforation of the septum, although it does sometimes follow the operation. Asch says perforation following the operation is so rare as not to be considered as a probable sequence and the few cases he has seen were due to cachexia and to unskilful performance of the operation.

A Case of Mycosis Fungoides.

By ALFRED E. DIEHL, A. M., M. D., Buffalo, N. Y.

MYCOSIS fungoides, or more properly granuloma fungoides, was first described by Alibert in 1814. It is as a rule divided into three stages, as described by Bazin, but one or more of these stages may be absent in any case. The disease usually begins on the head, spreading downward, until the whole surface of the body may become involved, as sometimes happens in the early stage; later the disease becomes more circumscribed and is limited usually to the tumor formations.

The first stage is called the eczematous or premycotic stage. This is characterised by the formation of round or irregular patches of erythema, generally accompanied with severe itching. These patches may clear up in the center, forming circles or gyrate figures. Scratching, induced by the severe itching of the parts, leads to the production of vesicles, the exudation from which dries into crusts, giving the appearance of a true eczema. The patches of erythema may disappear from one locality, leaving behind a pigmented area, only to appear in some other situation. The duration of this stage varies from a few months to several years.

The second stage called by Bazin the "periode lichenoide," and by Köbner the "stadium infiltrationis," follows gradually and is characterised by the involvement of the entire thickness of the skin, which becomes infiltrated and stiff, and by the appearance of hard nodules, either in the patches of infiltration, or in otherwise healthy skin. These nodules may be bright red in color, or may differ in color but slightly from the surrounding skin, they may remain discrete, or they may become confluent. Like the patches of erythema, in the first stage, these nodules may come and go, leaving behind an apparently healthy skin, or a pigmented area. The itching is also severe, as in the first stage. The duration of the second stage varies also from a few months to several years.

The third stage is the stage of tumor formation, or the fungoid stage. The tumors formed in this stage vary in size from a pea to an orange; the smaller ones, as a rule, are bright red in color, or they may differ but little from the surrounding skin. The large tumors are lobulated and of a dark purplish color, the skin appearing tense and shining. The tumors have a peculiarity in that they will often disappear spontaneously in

the course of a few days, leaving sometimes no mark of their presence or merely a slight pigmentation. As a result of some irritation or spontaneously, these tumors will finally ulcerate, giving forth a copious serous or bloody discharge and now present themselves as fungating tumors, having the appearance somewhat of a cut tomato, as Alibert described it. When these tumors ulcerate they are extremely liable to septic infections. The general health of the patient, which has remained comparatively good during the early stages, now becomes markedly impaired. There is anorexia, sleeplessness, fever, as a result of local infection and diarrhea, the patient dying eventually of exhaustion.

As previously stated, there may be an absence of one or more of the stages of the disease, and tumor formation may be the only stage observed, being then known as mycosis d'emblee. On the other hand, as sometimes occurs, all three stages may be present coincidentally, as will be seen in the history of the appended case:

Mrs. E. M., widow, aged 52 years, had always been well; had no affection of the skin until eight years ago, when an eruption began on the right side of the neck, which was diagnosed as an eczema, and treated as such ineffectually, the eruption gradually spreading over the entire body. Four years later some tumors made their appearance, being first noticed under the right arm, later other tumors appeared in the groin, and on the posterior surfaces of the legs. These tumors varied in size from a pea to a hen's egg, some of which disappeared leaving no trace; tumors had also appeared in the breasts and on the arms; these also had disappeared. The patient presented the following appearance when she came under my observation. Nearly the entire surface of her body was covered with a seborrheal condition, the arms particularly and the face and neck were affected with an eczematous eruption, presented many excoriations and crusts, and there was considerable exfoliation of the epidermis. Scattered over the surface of the body and particularly on the legs were several sharply circumscribed patches of a dark red color, elevated somewhat above the surrounding skin, varying in size from a quarter of an inch to an inch in diameter. These patches involved the entire thickness of the skin, and also showed scratch marks, presenting the second stage of the disease. The tumor formation presented the most striking appearance. On the left side of the neck was a tumor about the size of a hen's egg; the patient said that about three weeks before this tumor appeared, there had been a tumor on the opposite side of the neck, which began to decrease in size as the later tumor grew. On the right arm, above the elbow,

was another tumor, about the size of an egg, firm in consistence, somewhat movable, which began about five weeks before. Patient said that there had been a tumor in the same situation previously, which had disappeared entirely. In each axilla, there were present three or four smaller tumors; scattered over the body were about a dozen small freely movable growths, varying in size from a pea to a pigeon's egg. On the right thigh, about six inches below Poupart's ligament, was a large lobulated tumor about the size of an orange, covered by a tense, purplish, shining skin. This tumor was very painful. The patient herself opened it with a penknife, thinking to ease the pain. About a pint of serous fluid exuded at the time of incision. The place of incision was the seat of a slough about two inches long by one-half inch wide. On the left leg was a large tumor, corresponding in size and situation to that on the right leg. Evidences of the disease were also seen on mucous membrane, both tonsils were enlarged, ulcerated and covered with a grayish slough; the soft palate was also ulcerated.

The patient was given arsenic in the form of Fowler's solution, hypodermatically, besides local applications to allay the itching. I was very forcibly impressed by the action of the arsenic, by the fact that each injection caused intense pain in the tumors, but nowhere else, the pain usually lasting three or four hours, necessitating the use of morphia. In the course of a week I was compelled to leave off the hypodermic medication on account of the pain. About a month after the patient came under my observation, the tumor on the left leg suddenly broke down and poured out a large quantity of bloody serum, and the tumor took the form of a dark red fungating mass, which discharged continually. The patient died two weeks later of exhaustion. An autopsy was not allowed. The only examination made was one of the blood, which showed a large increase in the number of eosinophiles; otherwise nothing of importance.

362 PEARL STREET.

Clinical versus Bacteriological Diagnosis and Quarantine of Diphtheria.¹

By WILLIAM L. CONKLIN, M. D., Rochester, N. Y.

SINCE the advent of antitoxin and the O'Dwyer tube, the feeling of dread with which, in former years, we began the treatment of a case of diphtheria, together with the feeling of despair which too often developed as the case progressed, has largely given way to a well founded hopefulness as to the final outcome.

1. Read before the Rochester Pathological Society, January 2, 1902.

Biggs and Guerard, after a careful review of statistics and published opinions covering the entire period since the introduction of antitoxin in 1892, reach very definite and positive conclusions. They say:

It matters not from what point of view the subject is regarded, if the evidence now at hand is properly weighed, but one conclusion is or can be reached—whether we consider the percentage of mortality from diphtheria and croup in cities as a whole, or in hospitals, or in private practice, or whether we take the absolute mortality for all the cities of Germany, whose population is over 15,000, and all the cities of France, whose population is over 20,000; or the absolute mortality for New York City, or for the great hospitals in France, Germany, and Austria, or whether we consider only the most fatal cases of diphtheria, the laryngeal and operative cases; or whether we study the question with relation to the day of the disease on which treatment is commenced, or the age of the patient treated; it matters not how the subject is regarded or how it is turned for the purpose of comparison with previous results. The conclusion reached is always the same—namely, there has been an average reduction of mortality from the use of antitoxin in the treatment of diphtheria of not less than 50 per cent., and under the most favorable conditions a reduction to one quarter, or even less, of the previous death-rate. This has occurred not in one city at one particular time, but in many cities in different countries, at different seasons of the year, and always in conjunction with the introduction of antitoxin serum and proportionate to the extent of its use.

It would be hard, indeed, to find, in all the history of medicine, another record of results so brilliant as have followed the introduction of serum therapy in the treatment of diphtheria.

It is a fact also, of which as physicians we may justly feel proud, that preventive medicine is receiving more attention today than ever before; and while the problem of the treatment of this dread malady has been studied with such gratifying results, the other and equally important problem of prophylaxis has received the careful attention of sanitarians, both in this country and abroad.

That substantial advance has been made during the last decade is made evident by a careful study of figures recently compiled by W. A. King, chief of vital statistics of the Census Bureau. In 1890 the death-rate in 271 cities of 5,000 and upwards was 21 per 1,000. In 1900, the rate in these cities was 18.8 per 1,000—a decrease of 2.2 per 1,000. In 341 cities of 8,000 and upwards the decrease was 2.4 per 1,000.

This decrease was due very largely to a reduction in the mortality resulting from the diseases of childhood. While there has been an increase of nearly 7,000,000 in the gross population of these cities, there has been as well a decided increase in the average age at death.

During the period to which I have referred many changes have been made in sanitary laws and regulations. But few, if any, of these changes have been of so great importance to both patient and physician as the application of bacteriology to the diagnosis and quarantine of diphtheria. Indeed, I think it may be safely said that as the use of antitoxin is the most important result of the study and investigation of diphtheria in the realm of treatment, so the application of bacteriology to diagnosis and treatment is the most important outcome of its study and investigation in the realm of prophylaxis.

An innovation so radical as the substitution of a bacteriological diagnosis and a bacteriological quarantine for diagnosis and quarantine, which have heretofore been based upon clinical data only, has naturally resulted in much discussion and not a little adverse criticism.

Some of you will remember that at the last meeting of this society, during an interesting discussion of this subject, the query was raised as to whether in view of the imperfections of the more recent method any substantial gain had resulted from its adoption. It is with a conviction and a hope that I have ventured to call your attention to this subject tonight.

My conviction is that the new method, though necessarily imperfect as yet, is far superior to the old, and hence should receive the hearty support of physicians. My hope is that a free discussion from various standpoints may follow the reading of the paper, and that as a result of this discussion much light may be thrown on a subject which is of vital importance alike to the physician and patient.

In no disease is it more important that an accurate differential diagnosis be made as early in the course of the affection as possible. The advantage thus gained is twofold: (1) prompt diagnosis means prompt isolation of the patient and the minimum of risk to others; (2) prompt diagnosis means in the majority of cases the early adoption of such a course of treatment as is most likely to result in speedy and complete recovery. The first advantage growing out of early diagnosis, viz., prompt isolation, can hardly be overestimated.

It is true that the contagiousness of diphtheria is not so well marked as is that of scarlet fever or measles, providing the discharges from nose and throat are properly cared for; still, with the favorable conditions for the development of the disease growing out of crowded and often imperfectly ventilated school rooms, a single unrecognised case may be the starting point of an epidemic. The importance of prompt quarantine is evident when we consider the increase in the number of cases of diphtheria which follows close upon the opening of the schools. This increase in our own city is strikingly illustrated by statistics compiled by the health officer.

For a period of five years, from 1896 to 1900, the average number of cases for July was 13, August 14, September 19, October 42, November 63, December 62. The average was also high for January, February and March, and lower for April, May and June. It is true that other conditions are in some degree responsible for the prevalence of the disease during the winter months, but it would seem evident that infection from mild and consequently unrecognised cases is of all causes by far the most important. Park says: "The most virulent bacillus I have ever found was from a mild case of diphtheria simulating tonsillitis." This being the case, the importance of early recognition and isolation of all cases of diphtheria, whether mild or severe, cannot be too strongly urged.

The second advantage of prompt diagnosis referred to above, viz., the early adoption in the majority of cases of such a course of treatment as is most likely to result in speedy recovery, is indeed great. Whatever method of treatment is adopted, it is evident that if of any value the earlier it is begun the more likely is it to be of avail. Especially is this the case with the serum treatment, for all observers agree that other things being equal its efficacy is in direct proportion to the promptness with which it is used. Unfortunately, when so much is to be gained by the early diagnosis of diphtheria, the clinical picture is often lacking in clearness of outline. Typical cases of pharyngeal diphtheria, with a well defined and rapidly spreading membrane appearing very early in the course of the disease, are the exception rather than the rule. Who has not been at a loss many times to determine from the appearance of an inflamed throat, what the character of the illness was to be? Neither is the degree of constitutional disturbance a safe guide, for not infrequently the onset of an attack of follicular tonsillitis is marked

by a greater rise of temperature and a more rapid pulse than are generally found at the beginning of an attack of diphtheria. The clinical differential diagnosis of laryngeal diphtheria and spasmodic croup is often still more difficult.

Reference was made at the last meeting of this society to a local epidemic of diphtheria, which occurred in this city a number of years ago. It was thought that this group of cases originated with one supposed at its inception to be a case of spasmodic croup. It is just such cases of a very serious disease often simulating so closely a malady rarely if ever serious, which are most likely to escape recognition, and escaping recognition most likely to spread the disease.

If, then, the early clinical diagnosis of diphtheria is often difficult, while it is always important, both for the sake of the patient and for the safety of others, is it not wise, imperative even, that we avail ourselves of any aid which the bacteriologist may be able to afford?

Since the investigation of Klebs, in 1883, and Löffler a year later, there has been abundant and constantly increasing evidence that the bacillus, which bears their names, is present in every case of true diphtheria.

Park says:

All the conditions have been fulfilled for diphtheria which are necessary to the most rigid proof of the dependence of an infective disease upon a given microorganism, viz., the constant presence of this organism in the lesions of the disease, the isolation of the organism in pure culture, the reproduction of the essential lesions of the disease in animals and in man by inoculation with pure cultures, the failure to produce all the characteristic lesions of this disease by any other bacteria, and the additional proof of the immunising value of the specific substances developed in animals subjected to injections of diphtheria toxin.

Having, then, a microscopical organism which is always present in diphtheria, on the one hand, and a macroscopical appearance about which there is often nothing pathognomonic, while there is often much which is misleading, on the other hand, shall we not be governed in making a diagnosis by the presence or absence of the microscopical organism rather than by a clinical picture which is so often indistinct and difficult of recognition, especially early in the history of the cases, when accuracy counts for so much?

The objection has been made to the bacteriological diagnosis of diphtheria that it is the physician's prerogative to make his

own diagnosis. This is true, but in dealing with cases which may be contagious in character, and hence a menace to the public health, is it not in a special sense his duty to avail himself of every possible aid to correct diagnosis? Further than this—does he not in reality make a tentative diagnosis of diphtheria in every case in which a primary culture is made? Does he not, in fact, call the bacteriologist to his aid much as he might seek the aid of the microscopist in a case of suspected nephritis, or in another of possible malignant growth.

It is true that occasionally the clinical tentative diagnosis of diphtheria may be changed in a day or two to a negative diagnosis, while the bacteriologist on the other hand reports Klebs-Löffler bacilli in the culture, but in view of all we know about the extremes, both of susceptibility and degree of infection in our patients, is it not quite probable that our tentative diagnosis, confirmed by bacteriological examination, is correct?

In comparing the relative merits of a quarantine of diphtheria, based upon bacteriological tests, and a quarantine of diphtheria, based upon clinical conditions, there are certain principles and objections which are worthy of careful consideration.

1. The dependence of diphtheria upon the presence of a specific microörganism, plus an element of susceptibility in the individual which is favorable to its growth and development.

2. The possibility of virulent bacilli remaining in the throat long after all clinical manifestations have disappeared.

3. The object of quarantine, viz.: the prevention and control of epidemics; in other words, the securing so far as possible, the greatest good to the greatest number.

Do not these three facts or principles taken in their logical relationship constitute an argument in favor of quarantine based upon bacteriological rather than clinical data?

The objection is made that a bacteriological quarantine sometimes extends over a period of several weeks, thus causing great inconvenience and expense. This is true, but inconvenience and expense, though matters for regret are not matters for so great regret as follows the needless loss of life.

So careful and competent an observer as Dr. V. A. Moore, of Ithaca, states that a child clinically recovered from diphtheria, though her throat still contained Klebs-Löffler bacilli, was allowed to mingle with her playmates, with a resulting local epidemic and four fatal cases. While, however, bacteriological quarantine means the occasional isolation of a patient for a

much longer period than the average time limit of the older method, it means in the long run, a saving of time, for the average of bacteriological quarantine is shorter than that of clinical quarantine.

Chapin states in a recent work on Municipal Sanitation that in 1898, 121 cities and towns in Minnesota had a time limit for the isolation of diphtheria. In 8 it was two weeks, in 14, three, in 10, four, in 9, six, in 1, seven. In 12, two weeks and in 13, three weeks after recovery. I will refer to only one or two other objections to bacteriological quarantine. It is affirmed that where repeated cultures indicate the presence of Klebs-Löffler bacilli long after all trace of membrane has disappeared from the throat, these bacilli may not be virulent, or while morphologically identical with Klebs-Löffler bacilli, they may differ from them in producing few if any pathological lesions.

Unfortunately, animal inoculation in every case of suspected non-virulence is not practicable, but it is a significant fact that when the test has been applied in long standing cases the bacilli have been found virulent in nearly all. It would seem that the chance of unnecessary quarantine on this account is very small. It is also urged that virulent bacilli are sometimes found in the throats of persons in perfect health. This is true, but recent investigations by Kober would seem to show that this is the case much less frequently than is generally supposed.

Cultures were made from the throats of 128 individuals who had been in contact with cases of diphtheria, and 600 who had not been knowingly exposed to the disease. Bacilli were found in 8 per cent. of the first series and 15 or 25 per cent. of the second series.

Upon further inquiry it was found that 10 of the 15 in the second series could be considered to have been exposed directly or indirectly. This would leave 83-100 of 1 per cent. as the number of unexposed in whose throats Klebs-Löffler bacilli were found. The bacilli in all the cultures of the first series were found by animal inoculation to be virulent.

While it doubtless requires the presence of Klebs-Löffler bacilli, plus a certain susceptibility to the toxin which they produce to constitute a case of diphtheria, clinically speaking, it requires the presence of the virulent bacilli only to constitute a case capable of spreading the disease.

Bacilli may occasionally be found in the throats of healthy individuals, but it can not I think be argued from that fact that

the continued quarantine of those who have recently had diphtheria, and in whose throats bacilli are found, is either unnecessary or unjust.

That there is the possibility of error in the bacteriological diagnosis and quarantine of diphtheria can not be denied, but is it too much to affirm that by its adoption a substantial advance has been made in the direction of early and accurate diagnosis and efficient isolation of this dread disease?

720 SOUTH AVENUE.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

Stated Meeting, January 28, 1902.

REPORTED BY F. W. McGUIRE, M. D., Secretary.

THE stated meeting of the Buffalo Academy of Medicine was held at the Academy rooms, Public Library Building, Tuesday evening, January 28, 1902.

The meeting was called to order by the president, Dr. CHARLES G. STOCKTON, at 8.45 p.m. The minutes of the last stated meeting were read and approved.

The council recommended the election of Drs. Joseph B. Betz and Vertner Kenerson for resident membership. They were separately balloted for and elected fellows of the Academy.

The section on obstetrics and gynecology provided the following program:

Dr. WILLIAM R. PRYOR, professor of gynecology, New York, read a paper, entitled

THE SUPRAPUBIC AND VAGINAL METHODS OF TREATING PELVIC SUPPURATION. (See page 629.)

DISCUSSION.

Dr. M. D. MANN: In discussing the paper at some length said that in the main features he agreed with the speaker, but differed in some conditions. He agreed that all unilateral lesions should always be operated on through the abdomen. He also agreed that where pus was situated above pelvic brim, involving other adnexa, such as appendix, bowel and the like, the abdominal route should always be chosen.

When it came to discussing gonorrheal infection, however, Dr. Mann made some exceptions. In regard to conservative operations, where merely drainage was done early, he pointed out that these patients, while they were apparently physically well, were really not anatomically cured. He also said in double gonorrheal infections he thought the uterus and both tubes ought to come out, but said he preferred to do it through abdomen, believing he could do it better and in a shorter period of time by this route. Dr. Mann said he had given the subject of vaginal work a great deal of thought and was firmly convinced that certain conditions were preferably treated by vaginal method, but that he believed that the abdominal route had a much wider scope than was usually attributed to it by those accustomed to the vaginal route.

Dr. HERMAN E. HAYD eulogised the speaker for the very clear and able manner he presented his subject. He firmly agreed that pus in the pelvis should be treated as pus elsewhere. He thought the more acute the sepsis was the greater the indication for the vaginal route. He also spoke at some length on the complications necessarily arising in opening abdomen, such as adhesions, possibly leading later to intestinal obstruction and the like. Early vaginal incision in septic cases should be done in order to prevent the destruction of these organs.

Dr. C. C. FREDERICK made a plea for conservatism in removing all pelvic organs, as he said he had seen severe nervous conditions follow total ablation. He urged that where possible the ovary should not be removed; he also thought that adhesion follows vaginal as well as the abdominal route.

Dr. S. Y. HOWELL believes it possible to save many organs by early vaginal drainage. He thinks where there is pus in pelvis the rational way seems to be through vagina. He believed both methods have their place and that each in certain conditions should be employed. He said the difficulty of vaginal work frequently led people to use abdominal route.

Dr. M. A. CROCKETT in a clear, concise way showed that the ability of a man to operate one way better than another should not be considered, but the question was which route should he choose in a given operation, the man having same skill in one as the other route. He thought that in all cases of general gonorrheal infection the uterus should be removed.

Dr. M. HARTWIG thinks that each case is a law unto itself and it is difficult to lay down any set rule for all cases; he also thought we should be prepared to operate both ways.

Dr. WILLIAM R. PRYOR in closing the discussion said, we seem to be agreed on most of the points of the paper, but differ slightly in regard to the treatment of gonorrheal infections. He said he wished he knew of some agent which would destroy the gonococcus without injuring the tissues. He said the vaginal route was not a panacea for all pelvic operations.

On motion a vote of thanks was tendered Dr. W. R. Pryor for his interesting and instructive paper.

Adjourned 10 p.m. Attendance, 58.

Section on Pathology, February 18, 1902.

REPORTED BY IRVING P. LYON, M. D., Secretary.

The regular monthly meeting of the section of pathology of the Buffalo Academy of Medicine, was held in the Academy rooms, Public Library Building, February 18, 1902, at 8.30 p.m., Dr. GROVER W. WENDE, chairman, presiding.

The essayist was Dr. JOHN ADDISON FORDYCE, of New York, whose subject was

CLINICAL AND PATHOLOGICAL CASES IN DERMATOLOGY, ILLUSTRATED BY STEREOPTICON.

The numerous photographs and photomicrographs presented on the projection screen were remarkable for their clearness and the wide range of dermatology and pathology embraced by them, being the personal work of Dr. Fordyce, preëminent in this field of work. These numerous illustrations were entertainingly discussed in an informal style by Dr. Fordyce.

Dr. LEO LOEB, of Chicago, presented specimens of white rats experimentally inoculated with sarcoma by injection into the peritoneal cavity of the filtered (through filter paper) juices of sarcoma. The original sarcoma was found in the thyroid gland of a white rat. The experimental tumors conformed always to the histological type of the original tumor. Metastases were obtained in some of the experimental white rats. Such an example was exhibited, a white rat showing the abdominal cavity filled with sarcomatous masses.

In discussing the subject, Dr. HARVEY R. GAYLORD stated that Dr. Loeb had succeeded in carrying the inoculation of sarcoma through a series of at least several hundred white rats.

Dr. A. L. BENEDICT inquired whether Dr. Loeb's experiment threw any light on the question of the possible identity of sarcoma and carcinoma, the histological difference depending upon the localisation of the process respectively in mesoblastic or in epithelial tissues. Dr. Loeb replied that he had never obtained carcinoma in his experimental animals. Moreover, the sarcoma produced always conformed to the type of the original tumor.

Dr. C. E. CONGDON asked whether the experimental tumors had been obtained in animals of different species from that of the animal showing the original tumor. Dr. Loeb replied that the original tumor was from a white rat and gave positive results only when transplanted into white rats or hybrids from white rats and common house rats. Negative results were always obtained in attempts to transplant the growths into chickens, guinea-pigs, white mice, rabbits and the like.

Dr. IRVING P. LYON remarked the apparent specificity of the process, requiring, as it did, that the tumor be transplanted into the identical species of animal (white rat) from which it originally came, or at the farthest, a hybrid produced by crossing the original species with a nearly related species (*i. e.*, white rat and common house rat). This fact indicated one of two things: either a specificity of an infecting microorganism or a specificity of the infecting pathologic cell, or, perhaps, a kind of combination of both—namely, a specificity of the pathologic cell itself infected with a microorganism. Hence the negative results obtained from the attempt to experimentally reproduce cancer in the lower animals from human cancer. The hope of solving the cancer question, therefore, seemed to lie in working upon animal cancer and inoculating this cancer in animals of the same species, as Dr. Loeb had done. Inoculation direct from human beings to animals was probably impossible.

Members present, 57. Adjournment, 10.40 p.m.

Stated Meeting, March 4, 1902.

REPORTED BY F. W. MCGUIRE, M. D., Secretary.

Stated meeting of the Buffalo Academy of Medicine was held at the Academy rooms, Public Library Building, Tuesday, March 4, 1902.

In the absence of the president, Dr. Charles G. Stockton, vice-president Dr. HARVEY R. GAYLORD acted as presiding officer and called the meeting to order at 9 p.m.

The minutes of the last stated meeting, held January 28, 1902, were read and approved.

The council recommended the election of Drs. David Everett Wheeler and Louis J. Beyer for resident membership. They were separately balloted for and elected fellows of the Academy.

Nomination of officers resulted as follows: For president, Drs. Ernest Wende and Herman E. Hayd; treasurer, Dr. Charles S. Jewett; trustee, Drs. Eugene Smith and Stephen Y. Howell.

A communication was received from Dr. Charles G. Stockton, expressing his regret at his enforced absence from the meeting.

It was moved and seconded that a committee of five be appointed to investigate the charges made by Dr. Julius Pohlman against St. Mary's Maternity and Orphan Asylum, the committee to report at the next stated meeting of the Academy. The chair appointed Drs. William Warren Potter, Ernest Wende, Henry R. Hopkins, Francis E. Fronczak and Thomas F. Dwyer as such committee.

The program for the evening was under the auspices of the section on surgery, and consisted of a paper by Dr. ROSWELL PARK, entitled

THE ADVANTAGE OF EARLY SURGICAL INTERVENTION IN BORDER-
LAND CASES.

The paper was discussed by Drs. Herman E. Hayd, A. L. Benedict, E. E. Blaauw and Eugene Smith.

A motion was made by Dr. PARK that suitable expressions of regret be sent to the relatives of the late Dr. Moore, of Rochester. Carried. The committee appointed to draw up such resolutions were Drs. J. W. Grosvenor, Herman E. Hayd and Eugene A. Smith.

Attendance, 40. Adjourned at 11 p.m.

THERE are now 63 vacancies in the medical department of the army, the largest number in the history of the corps. The next examination will be held in Washington, D.C., April 7.—*Medical Age*.

PROGRESS IN MEDICAL SCIENCE.

Orthopedic Surgery.

CONDUCTED BY PRESCOTT LeBRETON, M. D., Buffalo, N. Y.

REVIEW OF RECENT LITERATURE ON TUBERCULOUS DISEASE OF THE HIP-JOINT.

FIXATION, traction and protection are easily provided for knee and ankle joints, but the same treatment is procured with difficulty for hip joint, because of its ball and socket movement and because it forms the junction of trunk and lower limb. The solution of the problem as to what method or combination of methods yields the best results in hip disease has not yet been reached, although discussion has been continued for years past. Whitman (*Orthopedic Surgery*, 1901,) details the American, English and German methods of treatment and their advantages and disadvantages. The American method, so-called, after subsidence of acute symptoms, consists in applying the well-known traction splint, with its pelvic band, perineal straps, upright and foot piece, traction being made by rack and pinion and the moleskin plaster attached to the leg. When this apparatus is used as a walking brace, constant traction is not exerted, as the straps alternately relax and tighten when the weight of the body falls upon and leaves the brace in walking. Little actual traction is exerted ordinarily, although motion at the joint is restricted. Lovett's experiments show that the hip describes an arc of 35° of joint motion. Of course, if a high shoe is worn on the opposite foot and crutches are employed, traction is uninterrupted, but Davis, its inventor, and Taylor, who made it practicable, meant it for a walking brace.

Thomas, of Liverpool, in 1875, introduced his splint so extensively used in England, consisting of a flat piece of malleable iron, extending from the lower angle of the scapula to the middle of the calf, with chest, thigh and leg bands. This brace and the plaster-of-Paris spica, employed mostly by the Germans, afford fixation, but the Thomas splint is inefficient in antagonising lateral distortion, and the plaster-of-Paris is heavy, dirty and requires frequent renewals.

Whitman has experimented with cases with the idea of trying to combine in a brace all the advantages and none of the disadvantages of the other methods; in other words, to grant fixation, traction and protection without the production of

flexion, which often occurs after the use of the traction brace, or lateral distortion, which occurs after the use of the Thomas splint. Whitman used first a spica of plaster-of-Paris under the ordinary traction brace. Then he exchanged the plaster for a short Thomas brace beneath the traction brace. Then he combined the two by attaching a lateral thoracic bar to the pelvis band of the traction brace with metal band encircling the chest. This combination brace is now in general use at the Hospital for Ruptured and Crippled. It is to be noted that Ridlon at one time used a brace identical with this, and that Phelps has described a form of brace with a thoracic support, and with arrangements for lateral traction.

Dane, of Boston, (*New York Medical Journal*, August 24, 1901,) found the ordinary traction brace unsatisfactory, because the upper pelvic arm is short and grasps the pelvis very imperfectly, thus affording poor fixation. He followed Whitman's plan of the thoracic extension for two years and concluded that the grasp of the chest was even more unsatisfactory than the grasp of the pelvis. He decided that the thoracic arm served only as a lever by which all the motions of the trunk were transmitted directly to the hip joint, and that the compensating action of the lumbar spine, the "third hip joint," was only possible when left perfectly free and unhampered by any apparatus. He then modified his original brace which was similar to the ordinary traction splint, by adding a second posterior pelvic arm, carried as far down as possible over the sacrum, while the upper followed closely under the curve made by the crests of the ilia. A thick piece of leather was riveted firmly to the two arms, thus allowing a firmer grasp of the pelvis. The result showed an arc of motion of only six degrees.

Lovett (*New York Medical Journal*, August 24, 1901,) has made a strong plea against routinism in the treatment of hip disease. He believes that motion beyond the limit set by the reflex spasm is harmful, and is an advocate not only of traction, but strong and efficient traction, while fixation, although of great importance in acute cases with limited range of motion, is in general inferior to traction. For the treatment of severe cases allowing less than 20 degrees or 30 degrees of motion in flexion, Lovett has used with success a sole leather spica, reaching from the upper chest to the calf, outside of which is attached a skeleton long traction splint. With this treatment recumbency proved unnecessary. The splint was removed as

seldom as possible. Cases allowing 25 degrees to 45 degrees of motion in flexion may be treated by Dane's splint with high shoe and crutches. The ordinary long traction splint should be limited to cases allowing well over 45 degrees of motion and should be used with high shoe and crutches.

Jouon (*These de Paris*, 1901,) quoted by Ostheimer (*Philadelphia Medical Journal*, February 1, 1902,) reports six cases of dislocation of the hip appearing spontaneously at the outset of hip disease. Hydrarthrosis is the predisposing cause and muscular effort the exciting cause. The dislocations were generally backward in type. The prognosis is excellent and treatment consists in reduction under anesthesia, a plaster-of-Paris spica and extension. La Guichaoua (*These de Paris*, 1901,) believes that the iliac variety is most frequent. When reduction is impossible, he advises osteotomy of the femur with the hope that ankylosis in good position may be the result.

Pediatrics.

CONDUCTED BY MAUD J. FRYE, M. D., Buffalo, N. Y.

ULCERO MEMBRANOUS ANGINA.

SOBEL and HERRMAN (*New York Medical Journal*, December, 1901,) call attention to an infrequently recognised, though not uncommon form of sore throat, and report twelve cases in children. Microscopically these cases show the same fusiform bacilli and spirilla which are found in ulcerative stomatitis.

In the twelve cases reported the ulceration was with one exception limited to the tonsils, usually to one tonsil. It varied in size, sometimes involving the greater part of the tonsil, was irregularly oval in shape and chancroidal in appearance. A swab applied to the lesion enters a cavity one-eighth to one-half inch in depth. The color is either yellowish, greenish-gray or a dirty-light brown. There is some elevation of temperature, although constitutional symptoms are usually wanting. The complaint is of sore throat and pain on deglutition. The submaxillary glands on the side of the lesion are involved.

It differs clinically from diphtheria in being distinctly an ulcerative process with no tendency to spread beyond the tonsil, and in the absence of the usual constitutional symptoms of diphtheria. The mild constitutional symptoms and the appearance of the tonsils distinguish it from follicular tonsillitis. Smears

from the lesion stained show the characteristic bacilli and spirilla. Cultures are chiefly useful in proving the absence of the Klebs-Löffler bacillus.

The prognosis is invariably good. Treatment consists in local applications made daily, silver nitrate 3 to 5 per cent. being oftenest used. The patients were cured in from 6 to 26 days. Diphtheria antitoxin, which was twice given, had no effect on the disease.

DIPHTHERIA COMPLICATING MEASLES.

BLAKELY and BURROWS (*Boston Medical and Surgical Journal*, July 25, 1901,) call attention to the frequency with which diphtheria complicates measles. In a series of 157 cases in which the diseases were combined, 54 deaths occurred, or 34 per cent., the death-rate during the same period for uncomplicated cases of diphtheria being 13 per cent. Of this whole number 82 had laryngeal diphtheria and of these 36 died. From their experience the authors make the following deductions: The existence of diphtheria or the possibility of its onset should be considered in every case of measles, for the congestion of the mucous membrane of the tonsils and air-passages caused by the measles process renders it especially vulnerable, an unusually good field for the growth of the bacilli of diphtheria. Nasal obstruction or laryngeal obstruction arising during an attack of measles almost certainly means diphtheria. If the initial fever of measles disappears, and there is later a sudden rise of temperature, or if the cough becomes "brassy" in quality or paroxysmal in character and is accompanied by an elevated temperature, the possibility of measles must be considered. If the initial fever persists and aphonia develops, diphtheria is probably the cause. Uncomplicated measles is usually accompanied by a more or less abundant serous nasal discharge; but if this discharge becomes purulent or muco-purulent in character, or if there is partial or complete nasal obstruction accompanied by a glairy discharge, diphtheria should be suspected. In all obscure cases the patient should be given antitoxin. The earlier in the course of measles diphtheria develops the more serious is the outlook.

OTITIS MEDIA NEONATORUM.

JOACHIM (*New Orleans Medical and Surgical Journal*) calls attention to the frequency with which this affection occurs in

early infancy. He makes a plea for its more frequent recognition. The most essential symptoms are restlessness, increased temperature and loss of weight. An involuntary persistent throwing about of the head; a continual whimpering with occasional loud cries of pain, often taken for colic; the refusal of food, due to pain, caused by deglutition and consequent loss of weight; and the often observable reaching for the ear by the infant, or the loud cries when the ear is touched, should direct attention and investigation to the probable existence of acute middle-ear inflammation. Diarrhea, uncontrollable by properly regulated diet and treatment, meningeal symptoms and convulsions, are often in the train of symptoms of acute infantile middle-ear disease. Ear inflammation in the course of the acute exanthemata and broncho-pneumonia should be watched for.

MILK MODIFICATION.

McDONALD (*Boston Medical and Surgical Journal*, November 21, 1901,) calls attention to a point usually overlooked in milk modification. Human milk contains caseinogen and lactalbumin in equal proportions, while in cow's milk there is but one part of lactalbumin to six parts of caseinogen. In the ordinary process of modification the lactalbumin is still further reduced. Another marked difference between human and cow's milk is in the condition of the phosphorus which both contain. In the former it exists in organic, in the latter in inorganic compounds. He suggests that both these deficiencies may be somewhat overcome by the use of whole egg, together with cereal, along with the present method of milk modification.

NEW INSTRUMENT.

The McKesson & Robbins Nose Cup.

A NEW ADDITION TO THE TOILET.—NO MORE MOUTH BREATHING.

By WILLIAM JAMES EVANS, New York.

AN interesting paper might be written on the changes that would take place if the world were suddenly deprived of all its tooth brushes and other toilet articles.

The clinical evidence resulting from neglect of the teeth formerly kept in a healthy condition, would however be no more

alarming than the conditions which have obtained prior to the recent introduction of the McKesson & Robbins nose cup.

A very small percentage of men, and not more than 5 per cent. of women, breathe properly. About 24 per cent. of the people die of throat and lung diseases. It is not disputed that over half of this number would live to be much older and probably die of other diseases if they took better care of their nostrils. Mouth breathers are invariably people with poor digestion, who show all the evidences of malnutrition as a consequence of the malocclusion of the teeth, which has its primary cause in obstruction of the nasal passages.



We have always known that only the uncleanly breathe with open mouths, but we have not formerly had a device so simple and effective with which to form one of the most necessary habits in connection with the toilet.

The constant irritation of the mucous membrane of the nostrils, by the infected dust of large cities and unclean buildings, produces the local heat, which makes the benign and otherwise healing mucus dry in patches in the nostrils and at the back of the mouth breather's throat to such an extent that naso-pharyngeal lavage is imperative.

Irrigation of the nasal passages with the nose cup which I have devised, and which is herewith illustrated, will soon change the pathological to normal structures, and transform the mouth breather to the nose breather. This method should become as much a part of the toilet as the use of the tooth brush.

Fortunately this irrigation prompts the flow of healthy mucus which has bactericidal power and, in covering the denuded portions of the mucous membrane, gives the best protection and the most comfortable relief. The nostrils should not be violently blown at any time and not at all when there is either water or saline solution in them, but can more safely be cleared after waiting for the flow of normal secretion, which after all is nature's remedy when conditions are favorable.

The illustration gives an understanding of the shape and size of the cup. It is 3 inches high by $1\frac{3}{4}$ in diameter, made of strong glass and can be carried in the pocket or traveling bag.

The price is but 25 cents and it is supplied by all druggists.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

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APRIL, 1902.

No. 9.

State License for Nurses.

IN KEEPING with the reforms that have been established in this country within the past few years relating to the protection of human health and life, the suggestion has been made recently that graduate nurses who propose to practise their profession shall obtain a license from the state, conferred after due examination. To this general proposition there can be no reasonable objection; but, of course, opinions will differ as to the methods of establishing it.

One of the chief difficulties to overcome is the fact that almost every hospital, public and private, in large cities and small towns, has established a training school to promote its own particular interests. In this way the public has thrust upon it all sorts of nurses with all kinds of training. Some, of course, have received adequate instruction to fit them for general nursing, and such are competent to carry out the instructions of a physician in any case whether pertaining to general or special medicine, from typhoid fever to obstetric service. These, however, have been graduated from the best training schools which, comparatively speaking, are few in number.

In the private or smaller hospitals the training is usually adapted to the requirements of the patients that are under special treatment; hence, such nurses, speaking generally, do not receive as elaborate instruction and are not as well equipped for general nursing as are those from the larger institutions. We have heard the criticism that nurses in the general and larger training schools fail to receive instruction with reference to what may be termed the niceties of nursing. The proper preparation of a tray, bringing food hot to a patient's room, the administra-

tion of a bath or the general arrangement of the patient's toilet, frequently become as important factors in the ministrations to the sick, as promptitude or adequacy in medicinal dosage. A nurse who cannot do all this and do it well has no place in the sickroom. In certain private or small hospitals, particularly those where women only are taken for treatment, greater attention is given to the refinements of nursing, and a graduate from such an institution is generally equipped in the best manner possible for private nursing among people of education.

On the other hand, the large hospitals pay considerable attention to operative procedures and other glittering generalities, but scarcely any attention to the refinements of nursing. In other words, there is no uniformity in the curriculum for the training of nurses; each hospital, public or private, establishing its own methods and standards. The result is, that this kind of instruction is in a somewhat heterogeneous state. Nurses have been admitted in many instances without adequate preliminary requirements, their training-school life has not been properly directed, and their final examinations have not been as strict as the importance of the subject demands.

It would seem to be in keeping with the spirit of the age to place the education of nurses in the hands of the regents of the University of the State of New York, and in this way make it conform to the general scheme for education, professional and otherwise, established by law. By such a plan the number of training schools could be reduced, the efficiency of others enhanced, and the quality of nurses improved. A state license is a prize that would stimulate the best efforts on the part of pupils and would lift the trade of nursing to the higher level of a profession.

Apropos of Osteopathy.

IN A certain type of mind to which the occult appeals with great force is to be found the secret of the perennial vogue of the quack and the charlatan. The physician of today will be entertained and comforted if he will re-read a certain one of Dr. Oliver Wendell Holmes's medical essays in which the rise and fall of various popular delusions of other days are set forth. For the popularity of the latest wonder-cure, osteopathy, the medical profession has itself in no small degree to blame. A therapeutic measure of distinct value in selected cases has been so neglected

by the profession generally that a charlatan seizes upon it and seeks to and in some localities succeeds in elevating it into a "school of practice." Surround such a genuine therapeutic measure with a halo of mystery and you have a combination irresistible to the credulous mind. Many physicians are slow to get away from the idea that in drugs alone are found all valuable remedial agents. Medical schools are slow to incorporate in their curricula practical instruction in the use of therapeutic measures outside of *materia medica*. Mechano-therapy, electricity, hydrotherapy, suggestion, and of not less importance, diet, fresh air, sunlight and exercise, should be remembered as belonging to the armamentarium of the physician, no less than iron, quinine and calomel. Nothing which relieves pain or prolongs life is outside the domain of medicine.

THE state department of health has announced that it is prepared to furnish diphtheria antitoxin for the treatment and immunisation of persons sick or exposed to diphtheria. A year ago the legislature made an appropriation for the establishment of a laboratory to produce and distribute antitoxins. Last autumn the Bender Hygienic Laboratory, at Albany, began the production of diphtheria antitoxin and the serum is now ready for distribution.

Those entitled to treatment with the state's product are any of the inmates of state or other charitable institutions, hospitals and asylums and any person suffering from or exposed to diphtheria who is unable to purchase this remedy.

THE health commissioner of Buffalo, Dr. W. D. Greene, lately announced that signs will be placed in all street cars by April 1, 1902, forbidding expectoration in the cars and that, as soon as the signs are in place, the new antisputting ordinance will be enforced to the full extent of the law. The announcement was made as a result of a recent conference between Dr. Greene, Supt. Mitten of the International Traction Company and Supt. Bull of the Police Department.

HEALTH COMMISSIONER GREENE recently announced the appointment of the five district nurses as sanitary inspectors. These will serve in this capacity without pay, reporting to the health department any violations of sanitary laws which attract their attention. The appointees are: Anna Dean, Alice Meyers, Agnes Odell, Adelaide Colegrove and Anna Damer.

PERSONAL.

DR. ROBERT M. ANDREWS, U. of B. '98, has been appointed health officer of Bergen in the place of Dr. M. W. Townsend, deceased.

DR. J. B. MURPHY, of Chicago, is making a vacation tour in Mexico, where he is spending a few weeks in that balmy climate.

DR. ADOLPH H. URBAN, formerly of New York, has established his offices and residence at 523 Franklin Street, Buffalo, where he will devote himself to the practice of diseases relating to the ear, nose and throat. Hours: 9 to 12 a.m., 5 to 6 p.m., and by appointment. Telephone, Tupper 1436.

DR. THOMAS LOTHROP, of Buffalo, a former editor of the JOURNAL, has been suffering from grievous illness for a few weeks. Happily, however, just as these lines are printing, it is announced that he is very much improved and his early recovery is looked for.

DR. ROSWELL PARK, of Buffalo, was tendered a reception at Philadelphia, Wednesday evening, February 19, 1902, by the Charles K. Mills Neurological Society and the Pennsylvania Medical Society. On the evening referred to, Dr. Park presented a paper on Student life in the middle ages, before the societies in question. Upon invitation of the University Club in Buffalo, Dr. Park presented the same paper before that body on Saturday evening, March 15.

OBITUARY.

DR. EDWARD MOTT MOORE, of Rochester, died at his home in that city March 3, 1902, aged 88 years. He was born in Rahway, N. J., in 1814, of French Huguenot and English parentage. His family moved to this city in 1830, and he was graduated from the medical school of the University of Pennsylvania in 1838 and began the practice of medicine in Rochester.

Dr. Moore then began a medical and surgical career that was destined to make him famous throughout the English speaking

world. In 1843, he was elected to the chair of surgery in the medical college at Woodstock, Vt., and in 1858 was chosen professor of surgical pathology in the medical department of the University of Buffalo. In 1860, upon the removal of Professor Frank Hastings Hamilton to New York, Dr. Moore succeeded to the chair of principles and practice of surgery, in which he continued to teach for the next twenty-five years. In 1880, he



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EDWARD MOTT MOORE—1814-1902.

was appointed president of the state board of health in accordance with the law then passed creating that body. He retired from the chair of surgery at Buffalo in 1883, but continued his service at the state board of health until some years later.

Dr. Moore is best known to the professional world as a surgeon, and during his extensive career as a teacher and practitioner of the art he contributed many important methods of

dealing with injuries, especially as related to fractures of the long bones. Conspicuously among the number may be mentioned his unique appliance for the treatment of Colles's fracture of the radius and his dressings for the fracture of the clavicle. He also was a contributor to medical literature and his monographs will stand out with conspicuous prominence as having added to the sum of professional knowledge.

He was president of the Medical Society of the State of New York in 1874 and of the American Medical Association in 1888, and of the American Surgical Association in 1883. He was also for many years president of the board of trustees of Rochester University.

In Buffalo, Dr. Moore was well known and during his twenty-five years of teaching at the university had endeared to himself many pupils, now scattered all over the world, who will ever revere his memory. Appropriate action was taken by the faculty of Buffalo University and the Buffalo Academy of Medicine.

DR. CHRISTIAN FENGER, of Chicago, died at his home in that city March 7, 1902, of croupous pneumonia, at the age of 61 years. He was a surgeon of eminence and noted for his scientific attainments.

DR. WILLIAM WARING JOHNSTON, of Washington, D. C., son of the late Dr. William P. Johnston, died at Atlantic City, N. J., March 22, 1902, aged 58 years. He graduated from the University of Pennsylvania, March, 1865, and after spending three years abroad established himself in practice in his native city. He was famous as a diagnostician, as his father before him had been, and his patients numbered some of the most distinguished men in public life during the last thirty years.

DR. MORRIS W. TOWNSEND, of Bergen, N. Y., died at his home February 26, 1902, aged 75 years. He was a prominent physician in his region, served as a medical officer in the civil war, and attained considerable prominence as a surgeon. He was a member of local and state medical societies, and is survived by a son and a daughter, both of whom reside at Bergen.

DR. EDWARD A. FISHER, of Buffalo, died of apoplexy, March 1, 1902, aged 42 years. He was a district physician, a member of the staff of the Buffalo Homeopathic Hospital, and of the

Clinical Club. These organisations have taken appropriate action regarding Dr. Fisher's death and they attended the funeral in a body.

SOCIETY MEETINGS.

THE American Association of Pathologists and Bacteriologists held its second annual meeting at Cleveland, Friday and Saturday, March 28 and 29, 1902, under the presidency of Dr. William T. Councilman, of Baltimore. Papers were read by a number of men distinguished in these branches of medical research, among whom were Drs. Harvey R. Gaylord and Herbert U. Williams, of Buffalo.

THE International Association of the Medical Press will take place on April 7, 1902, at Monte Carlo, under the protection of his highness, the Prince of Monaco. This meeting should have occurred in September, 1901, but for diverse reasons was postponed several months. At the meeting an effort will be made to organise a permanent bureau for the international medical press—similar to our Associated Press—for the reception and delivery of news items to the various medical journals subscribing to this association.

THE American Congress of Tuberculosis will hold its third annual meeting May 14, 15 and 16, 1902, at the Hotel Majestic, 72d Street and Central Park, West, in the City of New York, in joint session with the Medico-Legal Society.

THE American Association of Urologists will hold its first annual meeting on the last day and the day following the annual meeting of the American Medical Association. The officers of the association are: Ramón Guiteras, president; Wm. K. Otis, vice-president; John Van der Poel, treasurer; Ferd. C. Valentine, secretary; A. D. Mabie, assistant secretary.

THE Buffalo Academy of Medicine held meetings during the month of March, 1902, as follows:

Stated Meeting.—Tuesday evening, March 4. Program: The advantage of early surgical intervention in borderland cases, Roswell Park.

Section on Medicine.—Tuesday evening, March 11. Program: Observations upon two interesting cases of the local manifestations of hysteria, Prescott Le Breton. The present conception of neurasthenia, H. B. Singer.

Section on Ophthalmology, Otology, Laryngology and Rhinology.—Monday evening, March 17. Program: Disease of the skin affecting the nose; illustrated by the stereoscope, Grover W. Wende.

Section on Pathology.—Tuesday evening, March 18. Program: The chemic basis of dietetics, A. L. Benedict. A case of tertian malaria, arising in West Seneca, Eugene Horton, Stud. Med. An unusual case of mediastinal tumor associated with obstruction of the thoracic duct and accumulation of chyle in the pleural cavity, H. G. Matzinger. Gastric ulcer and other specimens, H. U. Williams. Primary tumors of the kidney, H. R. Gaylord.

Section on Obstetrics.—Tuesday evening, March 25. Program: Ectopic pregnancy, Henry D. Ingraham. Placenta previa, Matthew D. Mann.

THE Society of Physicians of the Village of Canandaigua has sent out the following: Annual meeting, January 8, 1903. Address by the retiring president, Dr. A. L. Beahan. Subject, Fracture of the femur. Program: February 6—Origin of cough, O. J. Hallenbeck. March 6—Postpartum hemorrhage, F. E. McClellan. April 3—Treatment of pulmonary tuberculosis O. J. Mason. May 1—Oxyuris vermicularis, D. A. Eiseline. June 5—Mental derangement in the lower animals, D. R. Burrell. September 4—Epidemics, H. C. Buell. October 2—Typhoid fever, M. R. Carson. November 6—Pneumonia in children, J. H. Pratt. December 4—Treatment of cough, J. H. Jewett.

THE Western Ophthalmologic and Oto-Laryngologic Association will hold its seventh annual meeting in Chicago, April 10, 11 and 12, 1902. Provisional program: Address by the president, C. R. Holmes, Cincinnati. Relations of the facial nerve to the tympanum, especially in tympanic exenteration (lantern lecture), B. Alex. Randall, Philadelphia. (by invitation). Symposium: Otorrhea. (a) The neighboring parts of the middle-ear and their infection, Otto J. Stein, Chicago. (b) The diagnosis of meningitis, phlebitis and cerebral abscess following

suppuration of the middle-ear, C. Barck, St. Louis. (*c*) What eye symptoms are of value in the localisation of brain diseases, C. Barck, St. Louis. (*d*) When should one operate for the cure of chronic suppurative otitis media? O. Joachim, New Orleans. (*e*) Principles of treatment, Wm. L. Ballenger, Chicago. A new field-of-hearing chart, Derrick T. Vail, Cincinnati. Pneumatic massage in aural practice, Edwin Pynchon, Chicago. Sources of error in functional tests of the ear, A. H. Andrews, Chicago. Thiosinamine and electrolysis in the treatment of tubal obstruction, Jos. C. Beck, Chicago. The lymphatics of the neck, J. Holinger, Chicago. The profession is cordially invited to attend.

COLLEGE AND HOSPITAL NOTES.

THE Brooks Memorial Hospital medical staff has been appointed as follows for the coming year: President, George E. Blackham; vice-president, Nelson G. Richmond; secretary, Walter H. Vosburg.

THE State Consumption Hospital at Raybrook is getting under way. Plans for the structure were approved recently by the trustees of the hospital. Ground will be broken about the middle of May and it is expected the hospital will be open for the reception of patients next winter.

THE College of Physicians and Surgeons at Baltimore has established post-graduate courses from April 28 to June 9, 1902. The courses are arranged under the following groups: (1) Medicine; (2) surgery; (3) medical and surgical specialties; (4) laboratory courses—(*a*) clinical medicine, (*b*) pathology, (*c*) bacteriology, (*d*) pharmacology.

THE Missouri State Medical Association will hold its next annual meeting at St. Joseph, May 20, 21 and 22, 1902, under the presidency of Dr. J. D. Griffith, of Kansas City. A program of interest is in preparation and the meeting promises well for the profession of Missouri.

A NEW free dispensary has been opened at the Emergency Hospital for those who are unable to pay for medical treatment.

A MARINE hospital for Buffalo is now a certainty. Congress voted an appropriation of \$125,000, the President approved the

bill at once and gave to Representative Alexander the pen he used in signing. To Mr. Alexander much credit is due for his active interest in pushing this work to a successful conclusion.

THE annual banquet of the Alpha Omega Delta fraternity of the Medical College of the University of Buffalo was held March 13, 1902. About 150 were present, including several members of the faculty. Mr. A. W. Hengerer acted as toastmaster. George N. Smith of the senior class spoke on Things in general and the senior class in particular. He dissected that body with a careless hand and laid open the faults of its members. William H. Johnson, '04, spoke on The fraternity and its relations to the alumni. Dr. Roswell Park made the address of the occasion. His subject was Surgery present, and its relations to the past.

THE St. Mary's Infant Asylum and Maternity Hospital, at Buffalo, was made the subject of charges as to its management by Dr. Julius Pohlman at a recent meeting of the Buffalo Academy of Medicine. The Academy authorized the appointment of a committee of investigation, which was afterward named, as follows: Drs. William Warren Potter, Francis E. Fronczak, Thomas F. Dwyer, Henry R. Hopkins and Ernest Wende.

THE Syracuse College of Medicine has a four years' course of study. Its facilities for instruction are unusually good. The main building is new, erected in 1896, and was carefully planned and constructed to meet in the most approved manner the requirements of a medical education of the present time. Competent judges pronounce this college unsurpassed in the state.

BOOK REVIEWS.

GAYLORD AND ASCHOFF'S PATHOLOGICAL HISTOLOGY. The Principles of Pathological Histology. By HARVEY R. GAYLORD, M. D., Professor of Surgical Pathology in the University of Buffalo, N. Y.; and LUDWIG ASCHOFF, M.D., Professor and First Assistant in the Pathological Institute of the University of Göttingen, Germany. With an introductory note by William H. Welch, M. D., Professor of Pathology in Johns Hopkins University, Baltimore. In one quarto volume of 354 pages, with 81 engravings in the text and 40 full-page plates. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$7.50 net.]

In the preface to this work the authors state that "it is intended to supplement the regular course in pathological histology and to lead the student and graduate to the application

of such knowledge in practice." The difficulty of conveying a correct conception of pathological histology outside of a laboratory and apart from actual sections of various diseased conditions, is so great that much difference of opinion exists as to the best mode of presenting the subject in a textbook. This work does not in any way pretend to be a textbook, but rather an atlas covering the principles of a course in practical pathology, and the authors have attempted to atone for the lack of actual demonstrations by presenting, by means of the heliotype process, a large number of photomicrographs of various pathological conditions.

This work has only recently appeared in German and its present appearance in English must be gratifying to all native readers. The German edition presented a high standard, but the English shows a decided improvement thereupon. The plates, instead of being bunched together in the rear of the book, are distributed throughout the text, making them more accessible and impressive. In our opinion, they are the very best yet produced in connection with similar medical works. The skill of Dr. Gaylord, one of the authors, in connection with microphotographic reproductions, is proverbial and he has here given us just what was natural to expect from an expert. The volume, as a whole, surpasses all others that have thus far been published—primarily in regard to the plates, which clearly demonstrate what can be done in the line of reproductions of this kind, especially when the publishers hesitate at no expense which will help to insure an intelligent appreciation of their most excellent pictures. In addition to the illustrations in black, we find thirty-five colored ones, representing various abnormal changes, which, either for their color correctness (amyloid) or their natural tint (pigment), deserve special mention. The authors show what can be accomplished in the way of tricolor photography, by giving a number of reproductions of this most recent art. These were obtained through the microscope, the color plates being made from color negatives taken directly from stained preparations. The result is satisfactory, considering the newness of the method, although the usual defects are still in evidence—the lack of sharpness in outline and the blending and blurring of colors. Opposite every plate a brief explanation is given and the reader is directed to the particular page where fuller information may be obtained.

The general arrangement of the book is in harmony with the well-known methods of Professor Orth, to whom this volume is dedicated. It is no easy task to prepare a work of this kind, to describe in full the pathology peculiar to each organ and the conditions of the various diseases, especially in this era of progressive medicine when about every month is marked by the proposition of some new theory, followed by various conjectures as to its etiology and pathology.

The work comprises 364 pages and is divided as follows:

Part I., microscopical technique; part II., pathological histology of organs; part III., the principles of optics and photomicrography.

In the first few pages, brief instructions are given regarding the use of the microscope, also for the manipulation of fresh material applicable to the investigation of fluids and tissue, which of late is considered very important in view of the fact that the old methods changed the tissue, while now it can be examined when fresh. The subject of histological technique is quite fully discussed—it would, of course, be impossible to include all the numerous suggestions; however, the omission of Stephanow's rapid collodion method is sure to be noticed. The section on the technique of embedding and staining is valuable, although neither full nor complete. Still many of the methods eliminated are wholly unnecessary, having been superseded by more modern modes.

Taken as it is, this work will enable one with a fair knowledge of laboratory technique to make a thorough examination of the latest and most improved methods.

The second part constitutes the principal portion of the book; gives a remarkably full epitomé of the pathological histology of organs, preceded by a proper reference to the normal, and followed by a concise description of the pathological changes of the various organs of the body. All this is admirably set forth. It is, of course, impossible in a review so brief as this to lay special stress upon all the good features of the work; let it be said, however, that the text on pathological lesions could hardly have been better, or done with fewer errors in description. All the chapters of the second part give proof of the author's intimate and practical acquaintance with pathology. The various tumors are clearly described and special attention is given to the etiology of carcinoma. However, this portion of the book does not cover as much ground as might have been expected, considering that one of the authors has made this subject a special study and is a recognised authority concerning some of its phases. The author, of course, confines himself to the parasitic theory, to which the attention of the whole world is at this moment directed. The bibliography relating to the subject under discussion adds greatly to the usefulness of the book.

The chapter on diseases of the blood is written by Dr. Lyon, and, considering its length, it must be claimed as one of the best, concise articles upon this subject that has yet appeared. It is written from a strongly individual point of view, possesses decided freshness of style and admirably condenses knowledge gleaned from various sources which is both interesting and valuable.

The third section is devoted to the principles and optics of photomicrography apparatus, and is very important in a pathological sense—an importance clearly shown by the attention paid by Dr. Gaylord throughout his work to photographic

reproductions. He begins by fully explaining the scientific principles of optics, a matter of great moment and a subject hard to master, and so confers upon all his readers what is of real and practical benefit. Full directions for putting together a photographic apparatus are given and illustrations furnished of appliances, many of which have been contrived by Dr. Gaylord himself, whose mechanical genius is well known.

A valuable portion of this section is devoted to the steps necessary to be taken in making a picture. While the directions are not new, they nevertheless relate to what is most practical for the amateur. The authors claim that the wet-plate process is the best for making a lantern slide; this involves more detail than any other known method—a fact which the authors should have recognised. It would have been better to have given full and specific directions upon this important point. We think reference should also have been made in this connection to the accepted merits of Paget's dry plates. This portion of the work will be specially welcomed as coming at a time when it is greatly needed.

The usual errors incident to a first edition are strongly in evidence throughout the book, a drawback, which of course, will be remedied in later editions.

In conclusion, it only remains to extend hearty congratulations to the authors upon the appearance of this admirable work, which is surely destined to occupy a leading position among publications of its class.

G.W.W.

GYNECOLOGICAL PATHOLOGY. A Manual of Microscopic Technique and Diagnosis in Gynecological Practice. For Students and Physicians. By DR. CARL ABEL, Privat-Dozent, Berlin. Translated and edited by Samuel Wyllis Baudler, M. D., Adjunct Gynecologist to the Beth Israel Hospital, New York. With a chapter on the embryology of the female genitalia and the pathological growths developing from embryonal structures. Illustrated by 100 engravings. New York: William Wood & Co. 1901.

The early diagnosis in malignant disease of the uterus has been insisted upon over and again. It has been almost continuously hammered at the general practitioner of medicine, but it has not yet been hammered *into* him; at least it would appear so, from the constant neglect that is observed in this important critical condition. One difficulty has been that it has needed special training to apply the needed methods for minute differential diagnosis in suspected cases. This obstacle to early detection of malignant disease will be removed to a large degree at least by the introduction of Abel's work.

It is not alone malignant disease, such as carcinoma of cervix and uterus, that is important of diagnosis, but endometritis in its various manifestations, polypus, sarcoma and a number of other conditions need early detection and differentiation in order to secure the prompt application of our resources for cure. This author tells us distinctly of technic; that is, how to obtain

material and how to use it, how to understand its appearances after preparation, and all in so simple a manner that it makes pathology a delightful study for a physician heretofore unfamiliar with its details.

Abel begins his studies at the vulva and carries them upward along the genital tract to the parovarium, examining each tissue with the utmost care and interpreting carefully all its significances. A chapter, or part, is devoted to embryology of the female genitalia and the pathological growths developing from embryonal structures. This is an important subject in which never before has it been made so clear.

The book is full of splendid illustrations and is a valuable contribution to the study of neoplasms of the genital tract of woman.

THE MENTAL FUNCTIONS OF THE BRAIN. An Investigation into their Localisation and their Manifestation in Health and Disease. By BERNARD HOLLANDER, M. D., M. R. C. S., L. R. C. P. (London). Illustrated with clinical records of 800 cases of localised brain derangements and with several plates. Octavo, Pp. 523. New York and London: G. P. Putnam's Sons. 1901.

The study of the mental functions of the brain has not made such rapid advancements during the past twenty years as some of the collateral sciences, and deviations from the normal mental state remain little understood and far remote from cure. With this defect in knowledge in mind the author aims in the present work to clear up the mystery of the fundamental psychical functions and their localisation in the brain. The author claims for this work the distinction of being the first work on the subject since the dawn of modern scientific research. This is perhaps a doubtful distinction, as to many it might seem to be only an attempt and surely other attempts have been made since the new era in science began (date not given.)

The author further states that brain surgery should, if future investigators confirm the author's observations, receive an immense stimulus to activity, and the data amassed by the author, and published in this work are so considerable as to open up quite a new field for research.

The author found that his localisations confirm those made a century ago by Gall, "whose marvelous discoveries of the anatomy and physiology of the brain, on which Spurzheim built his system of phrenology, were ignored even by his most scientific followers, so that the world is ignorant of them, and they are presented for the first time in this book." "No subject has been so thoroughly misrepresented, even by learned men of acknowledged authority, and no author has ever been so libeled and with such malice as Gall and this notwithstanding the fact that there is not one man of scientific repute who has written anything which would indicate that he has examined Gall's chief work, *Anatomie et Physiologie du Systeme Neveux*."

This quotation from the preface of the book shows what the

contents might be and they fairly represent the ideas or Gall's ideas rejuvenated by Hollander. Science is not jealous of any man, and any man who does honest research work is respected by scientific men the world over. There is no need at this late day of any champion in Gall's behalf, as his fate is as securely sealed as is that of Paracelsus or Mesmer, and no effort of Hollander's can unwind the thread of destiny that has been wound all one way for the past ten decades about the name and work of Gall or Spurzheim. This work is an interesting one to read, but not a wise one to follow, unless one is willing to surrender the ideas of Meynert, Charcot, Waldeyer, Bastian, Spitzka, Wilder and a host of other men of good repute. While there is much to learn and to respect regarding the configuration of the head—and while we are willing to go with Benedikt a long way on his travels, we hesitate to go into the jungles where Gall and Spurzheim would lead us because of the uncertainty of safe return to a scientific standpoint. The phrenology of Gall and Spurzheim is not the phrenology of scientific minds any more than the hypnotic exhibitions of Mesmer are the scientific unravelings of Charcot or Bernheim.

The greater part of this book is taken up with the defense of Gall's discoveries and some of the conclusions arrived at are as follows:

Morbid fear and melancholia are connected with the supramarginal and angular gyri of the parietal lobe. Kleptomania and voracious hunger and abnormal thirst with the anterior part of the temporal lobes, superior and inferior respectively. Irascibility and violent mania with the central part of the temporal lobes. Mania of suspicion and persecution with the posterior part of the temporal lobes. The tender domestic and social affections with the occipital lobe. Perception of tone (music) and of numbers with some part of the brain abutting on the fissure of Sylvius. Perception of form, size, place, color, memory of time, facts and events with the supraorbital gyri and adjoining parts of the frontal convolutions. Imagination and co-ordinated processes with the antero-posterior part of the frontal lobes. Religious mania and perversion of altruistic sentiments with the posterior-superior part of the frontal lobes. Satyriasis and nymphomania with the hemispheres of the cerebellum.

And then this sage advice:

Chief of all, however, the book should enable the physician or surgeon when he meets with cases in which the chief or perhaps the only symptoms are psychical not physical, to localise the seat of disease and to apply treatment accordingly. A new sphere is thus opened up for the practice of our profession—to the physicians of the mind as well as to the body.

If this be all true, then every page of this book deserves to be mounted in gold and hung in the consultation room of every physician the world over. If it is not true, and the leading scientific men of the world from Gall's time to the present day say *not*, then the book should be placed on the library shelf as one of those volumes which amuse rather than edify.

W.C.K.

MT. SINAI HOSPITAL REPORTS. Volume II. For 1899 and 1900. Edited by PAUL F. MUNDÉ, M. D. New York. 1901.

In 1899 was published Volume I. of the Mt. Sinai Hospital Reports and the number of cases commented on. Now comes Volume II., covering the work done for the years 1899 and 1900, edited in the same careful painstaking way, so characteristic of everything done by its editor, Dr. Paul F. Mundé, of New York. The statistics giving the number of patients treated during the year, the number discharged cured, improved or that died, shows that better work was accomplished in 1900 than in 1899, and yet more patients were received in 1898.

The report embraces the following papers and contributions: A case of acromegaly; diabetes mellitus with excessive polyuria; hyperidrosis; by J. Rudisch; A case of diabetes insipidus cured by suggestion, by J. Rudisch; A case of typhoid fever, complicated by a broncho-pneumonia, simulating typhus fever, by J. Rudisch; Statistics of cases of diabetes in the Mount Sinai Hospital during the years 1890-1900, by Julius Rudisch and Edward A. Aronson; On the relationship of fistula in ano to pulmonary tuberculosis, by Alfred Meyer; Typhoid fever and pharyngeal diphtheria, by Morris Manges; Acute lobar pneumonia, followed by purulent pericarditis; pericardotomy, recovery, by Morris Manges, and Howard Lilienthal; A case of exophthalmic goitre with diabetes mellitus and pigmentation, by Morris Manges; A case of rheumatoid arthritis associated with exophthalmic goitre in a girl sixteen years old, by Morris Manges; Pneumonia and the acute hemorrhagic diathesis, by N. E. Brill; Systemic pyocyanous infection. A critical view of the recorded cases, with the report of a case secondary to a staphylococcemia, by N. E. Brill and E. Libman; A contribution to the subjects of chronic interstitial nephritis and arteritis in the young, and family nephritis, with a note on calcification in the liver, by N. E. Brill and E. Libman; Gliosarcoma of the base of the brain pressing upon and in front of the left lobe of the cerebellum, with remarks on the diagnosis of cerebellar disease, by Henry W. Berg; Purpura hemorrhagica, by D. H. Davison; Statistics of children's diseases, by B. Scharlau; Report of the department of general surgery for 1899, by Arpad G. Gerster, A. A. Berg, A. V. Moschcowitz and Joseph Wiener, Jr.; Report of the department of general surgery for 1900, by Arpad G. Gerster, A. A. Berg and A. V. Moschcowitz; Report of the second surgical division, by Howard Lilienthal, Joseph Wiener, Jr., and Charles A. Elsberg; Simultaneous fracture of the vault and base of the skull—operation and recovery, by Howard Lilienthal; Gynecological service, by Paul F. Mundé, and Joseph Brettauer; Three cases of primary carcinoma of the vulva, by Joseph Brettauer; On tubercle of the choroid in conjunction with tubercular meningitis, by E. Gruening; The early recognition of choroidal sarcoma, by E. Gruening; Two cases of otitic brain abscess, operation, recovery, by E. Gruening; A series of mastoid opera-

tions, Charles H. May; Statistics of eye and ear service, by Carl Koller; A case of thrombophlebitis of the left sigmoid sinus masking a latent brain abscess in the left temporo-sphenoidal lobe, both arising from chronic otitis media, by Carl Koller; Report of anesthetics, 1900, by Eugene H. Eising; A case of dermoid cyst of the mediastinum, with remarks upon the etiology and embryology, and a survey of recent cases, by F. S. Mandlebaum.

The staff of Mount Sinai are to be congratulated on their work and on the able manner in which it is laid before the profession.

W. C. K.

A TREATISE ON SURGERY BY AMERICAN AUTHORS. For Students and Practitioners of Medicine and Surgery. Edited by ROSWELL PARK, M. D., Professor of Surgery in the University of Buffalo, N. Y. New (3d) edition. In one royal 8vo volume of 1350 pages, with 692 engravings and 64 full-page plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co. 1901. [Cloth, \$7.00 net; leather, \$8.00 net.]

The work before us, now in its third edition, is so well known that but little can be said which has not already appeared in the universally favorable criticisms which have welcomed the previous editions. The present edition is the second since the reduction of the work to one volume and in it certain revisions and changes in the corps of authors become apparent. The previous chapter on surgical gynecology, by Dr. Etheridge, has been replaced by an excellent chapter by Dr. Montgomery A. Crockett, of Buffalo, and the previous chapters on fractures and dislocations have been rewritten by the editor. A short chapter on blood examination and its application to surgery has been separated from the previous chapter on the blood, and now appears over the name of Irving P. Lyon, of Buffalo. The excellent lithographic plate of the blood in normal and diseased conditions which appeared in the second edition of the work, accompanies this chapter.

A marked improvement is found in the book by the removal of some of the less satisfactory of the old illustrations and the introduction of a series of new plates. These are largely photomicrographs, a few selected from other works, but the majority original. Plate 25, a new colored plate, illustrating melanoma, is a great improvement on the old one. The chapter on cysts and tumors shows extensive revision of the text, and 30 new illustrations, mostly printed on plates. It is interesting to note in this chapter the introduction of a paragraph on malignant chorion epithelioma and suprarenal epithelioma or hypernephroma, two important forms of carcinoma, which the recent work of Senn on tumors entirely ignored. The other chapters in this work show more or less extensive revision. It is extremely gratifying to see how ably the editor keeps in touch with all advances in practical surgery and surgical pathology, and it is fair to state that there is no text-book published which so ably sets forth the steady advance of American surgery. Its popularity and success have long been assured, and the new edition,

with its many improvements, will be welcomed by many teachers and thousands of students.

OUTLINES OF ANATOMY. A Guide to the Methodical Study of the Human Body in the Dissecting Room. By EDMUND W. HOLMES, A. B., M. D., Demonstrator of Anatomy, University of Pennsylvania (1892-1901); Surgeon to the Methodist-Episcopal Hospital, etc. Second edition. Lancaster, Pa.: The New Era Printing Co. 1902.

This little work already in its second edition is intended for the use of students in the dissecting room. As an elementary treatise and working guide at the dissecting table, it will prove invaluable. Perhaps the most difficult task for an author is to epitomise a subject for the student, and only those who have had the experience of Dr. Holmes are in a position to place before him the helpful hints and concise directions which this small work contains.

In the preface of the second edition, the author says that the work was prepared "in an endeavor to introduce method and discipline into the dissecting room and to thus revivify, if possible, the interest in practical anatomy." Those who have had the privilege of working under Dr. Holmes and know the enthusiasm he instilled into his work will especially appreciate this small work.

The order of sequence in the dissection is that usually followed, beginning with the dissection of the upper extremity, but an extremely useful novelty is found in the division of the work for the benefit of the student into days. Thus the work for the first day on the upper extremity consists of the dissection of the superficial fascia, the superficial nerves, the cephalic vein, etc., and the structures which are exposed upon the first division of the integument. On the second day the dissection of the pectoral muscles follows, and on the third day the axillary space is entered. In this way the amount of work the student should accomplish on each day is definitely indicated and he is prevented from undertaking too much, while at the same time he is informed what should constitute a fair amount of work for a given time.

A number of useful diagrams especially a series showing the folds of the peritoneum, printed in two colors, greatly adds to the value of the work. Taken in conjunction with the larger works on anatomy, these "outlines" should find their way to every dissecting room in the country.

H.R.G.

CLINICAL HEMATOLOGY. A Practical Guide to the Examination of the Blood with reference to Diagnosis. By JOHN C. DACOSTA, JR., M. D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College; Hematologist to the German Hospital, etc. Containing 8 full-page colored plates, 3 charts and 48 other illustrations. Octavo, 450 pages. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$5.00 net.]

The important part played by hematology in the diagnosis of many diseases, makes it incumbent upon the clinician to acquaint

himself familiarly with the science; the practising physician, too, may not neglect to equip himself sufficiently to enable him to apply it to the commoner conditions with which he daily comes in contact. In this book will be found the necessary data to guide both classes to a safe conclusion.

Disappointing though it sometimes is and not furnishing pathognomonic evidence of disease, or in not affording the clue of which one is in search, the science of hematology is yet so far advanced as to make it one to be reckoned with by every clinician who would exhaust every known method in his search for essential data that contribute to diagnostic accuracy.

This work represents the present state of this branch of study as evolved in one of the best equipped and adequately conducted laboratories in the country. It also represents the author's larger personal experience in extensive hospital and private practice, and army medical service, hence it may be regarded as the most complete and latest exponent of blood pathology.

One of the most striking and, we might add, essential features is the incompleteness of its descriptive detail, which so simplifies the methods of blood counting, staining and other means of investigation, as to bring it within the comprehension of the beginner; while, at the same time, technic is sufficiently elaborated to meet the conditions of advanced laboratory workers.

Before concluding this important outlining of the principal features of this most extraordinary and invaluable book we feel that a word of tribute is due to its pictorial features. Recognising the importance of correct illustrative work in a book on hematology, the publishers have striven to make the colored plates represent as nearly as possible the subjects as they appear to the eye, and have attained more than the usual amount of success in this direction. With the charts and numerous black and white reproductions the same care in preparation has been exercised. Altogether it is a work to be commended from every viewpoint, and we hope it will be found in the hands at least of every junior physician.

THE PRACTICAL MEDICAL SERIES OF YEAR BOOKS. Ten volumes. Issued monthly, under the general editorial charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. I. General Medicine. Edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago. With the collaboration of S. C. Slanlen, M. D. October, 1901. Pp. 275. Chicago: The Year Book Publishers, 40 Dearborn Street. [Cloth, \$1.50.]

The present volume is one of a series of books issued at monthly intervals, and covering the entire field of medicine and surgery, under the general editorial charge of Gustavus P. Head, M.D., professor of laryngology and rhinology in the Chicago Post-Graduate Medical School. This volume devoted to general medicine is edited by Frank Billings, M.S., M.D., dean of the faculty of Rush Medical College, Chicago. The

scope of this volume is a review of the year's work in general medicine, including the results and conclusions of the best essays published in medical literature throughout the world. The diseases of the respiratory organs are granted first notice and the literature dealing with pulmonary tuberculosis is fully considered. The papers read at the British Congress on Tuberculosis which met in London during July, 1901, are abstracted and Koch's latest doctrine criticised in some of its details. Short chapters are then devoted to pneumonia, the diseases of the bronchi and the pleura. Diseases of the circulatory organs follow with a rather extended reference to diseases of the heart. The bubonic plague and variola are fully considered under the general infectious diseases, while rheumatic fever, joint affections, diabetes, osteomalacia and uric acid diathesis are taken up under the head of constitutional diseases. The blood diseases, kidney and bladder affections, obesity, cancer and headache, are reviewed under the head of miscellaneous diseases.

It is the intention to publish a second volume dealing with general medicine in May containing the literature of the year upon those diseases which are most prevalent in the summer and autumn, namely, gastro-intestinal diseases, diseases of the liver and pancreas, typhoid fever, yellow fever, dysentery and parasitic diseases. The cost of the entire set, \$7.50, is within the reach of all and will appeal to many unable to secure the more expensive volumes.

W.C.K.

A TEXT-BOOK OF PHYSIOLOGICAL CHEMISTRY. For Students of Medicine and Physicians. By CHARLES E. SIMON, M. D., of Baltimore, Author of "Simon's Clinical Diagnosis," etc. Octavo volume of 452 pages. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$3.25 net.]

The author of this work needs no introduction to the American profession, as his excellent work on Clinical Diagnosis has been before the public for several years and has passed through numerous editions. His success at book-making enticed the author into a neighboring field and another excellent work is the result of his careful labors and researches.

Dr. Simon is an admirably clear writer and teacher, and has adapted his book not only to the needs of students, but also to those of the practitioners who may have been unable to devote to the subject the study which it merits. The volume will also serve as a guide in collegiate or private laboratories.

The first section of the book gives a general survey of the origin and chemical nature of the three great classes of foods and of the products of their decomposition. In the second section, are treated the processes of digestion, resorption and excretion. The third is devoted to the chemical study of the tissues and various organs of the body, the products of their action and their relation to physiological function.

The author discusses the elementary composition of the albumins, fats and carbohydrates, gives the different characteristic

reactions, their solubility, behavior to acids and alkalies, and the chemical composition of their compounds and derivatives. Under the second head are discussed the juices of the body, the process of digestion, either of the carbohydrates, albumins or fats. The chapter devoted to the urine is unusually complete, the newer tests are carefully described, and their importance pointed out.

The chemistry of the different organs of the body occupies the concluding chapters, and is perhaps the most interesting part of a most interesting book. To many the advances in therapeutics must be in line with the chemistry of the different organs and progress will be most satisfactory. Dr. Simon deserves the thanks of the profession for his painstaking labor and should be accorded its cordial support. W.C.K.

A TEXT-BOOK OF MEDICINE. For Students and Practitioners. By DR. ADOLF STRÜMPFELL, Professor and Director of the Medical Clinique at the University of Erlangen. Third American edition. Translated by permission from the thirteenth German edition, by Herman F. Vickery, A. B., M. D., Instructor in Clinical Medicine, Harvard University; and Philip Coombs Knapp, A. M., M. D., Clinical Instructor in Diseases of the Nervous System, Harvard University. With editorial notes by Frederick C. Shattuck, A. M., M. D., Jackson Professor of Clinical Medicine, Harvard University. Octavo, pp. 1264, 185 illustrations and 1 plate. New York: D. Appleton & Co. 1901. [Price, cloth, \$6.00; leather, \$7.00.]

This standard treatise on medicine is a valuable part of the literature of the subject and has been so esteemed since the publication of the first American edition, in 1886. It was again translated and published in this country in 1893, and now we have it for a third time, this one having been translated from the thirteenth German edition. It has also been translated into French, Italian, Russian, modern Greek, Turkish and Japanese, so that it has a pretty world-wide circulation; and of necessity has exercised great influence upon the thought and action of a great number of physicians.

The work has been well prepared for the American profession of medicine, first by the translators, who have made smooth reading English of the text, and next by the editorial notes, inclosed in brackets, that are added here and there. Some of the latter are extensive in scope and afford a most complete elaboration of the subject with which they deal. They are supplied by Professor Shattuck, of Harvard University Medical School.

It is an admitted fact that the Germans have taken a foremost position in investigation relating to internal medicine, and their contributions to its clinical studies have attracted the attention of the professional world. This book contains a conveniently arranged and well digested exposition of the present status of clinical medicine in Europe and America, made so by the combined efforts of author, translators, and editor, all of whom are skilful exponents of the subject. It thus becomes especially adapted to the use both of students and practitioners of medicine, to whom we cordially commend it.

THE PRACTICE OF OBSTETRICS. By American authors. Edited by CHARLES JEWETT, M. D., Professor of Obstetrics and Gynecology in Long Island College Hospital, Brooklyn, N. Y. Second edition, revised and enlarged. In one 8vo volume of 775 pages, with 445 engravings in colors and black, and 35 full-page colored plates. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, cloth, \$5.00 net; leather, \$6.00 net; half-morocco, \$6.50 net.]

When the first edition of this splendid work was issued two years and a half ago, we thought and said it was the most complete of the recent obstetric text-books. In the light of further observation and experience we think our judgment was well placed. This new edition exhibits revisions and changes, but the original plan is adhered to and is elaborated. The principal modifications relate to the pathology of pregnancy and obstetric surgery. New light is obtaining almost constantly in pathology, and new fashions are introduced in surgical technic, and the book has not lagged in these respects.

There are eighteen contributors to this volume besides the editor himself, and these represent as many different colleges, thus distributing the authorship among the principal teaching centers. The death of Dr. W. W. Browning necessitated a change in his department, which is now conducted by Dr. A. L. Bristow. Two of the sections formerly in charge of Dr. J. H. Ethridge, upon his death passed into the hands of Dr. M. A. Crockett, of Buffalo, who has rewritten them most admirably. A word should be said relative to the illustrations, many of which are superb, and all of which possess the merit of clearness and accuracy. Tricolor photography plays a satisfactory part, and some of the plates in color are exquisitely done. The treatise is one of the immediate present in everything relating to obstetrics.

MODERN OBSTETRICS: GENERAL AND OPERATIVE. By W. A. NEWMAN DORLAND, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Associate in Gynecology, Philadelphia Polyclinic. Second edition, rewritten and greatly enlarged. Octavo, 797 pages, with 201 illustrations. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$4.00 net.]

This manual of obstetric art has met with deserved approbation, presenting as it does the modern practice of obstetrics, in a clear yet concise form. It is divided most appropriately into two general sections—*physiologic* and *pathologic* obstetrics.

Physiologic obstetrics, on the first part, comprises eight chapters, in the first of which the organs relating to generation and parturition are anatomically considered. In the remaining seven a normal pregnancy is dealt with from conception to the conclusion of lactation. This part of the subject is presented in clear English, in concise verbiage and in scientific form.

The section which considers pathologic obstetrics is necessarily more elaborate, occupying about two-thirds of the book. It discourses upon diseases of the ovum and the fetal appendages, pathologic conditions of the fetus, the pathology of pregnancy,

dystocia, pathology of the puerperium, and the pathology of the new-born, in the order named, and presents each in an instructive manner.

We confess to a great liking for this book and sympathise with the author's methods of dealing with the whole subject, differing from him on some minor points of no essential significance. We trust this manual will find its way into the hands of every undergraduate, as it will serve to smooth his pathway in early struggles with a somewhat difficult subject.

A MANUAL OF THE PRACTICE OF MEDICINE. By GEORGE ROE LOCKWOOD, M. D., Professor of Practice in the Woman's Medical College of the New York Infirmary; Attending Physician to Bellevue Hospital. Second edition, revised and enlarged. Octavo volume of 847 pages, with 79 illustrations and 20 full-page plates. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$4.00 net.]

The object aimed at by the author in preparing this work was to supply a field intermediate between the comprehensive treatises and the elementary handbooks. How well he has accomplished his purpose is attested by a demand for a second edition in so short a time. His classification is after Osler and his methods of treating his subjects are equally modern.

In the revision there has been rewriting as well as adding to, so that now the book stands quite in the forefront of practice literature. Among the new sections may be mentioned bubonic plague, gastropnoia, gastric analysis and Reichmann's disease. The subject of malaria has been entirely rewritten. The section on diseases of the digestive system has also been largely rewritten, especially the following topics: gastritis, dilatation of the stomach, gastric atony, ulcer of the stomach, gastric neuroses, enteritis and colitis.

It is one of the most complete manuals of medical practice before the profession and readily appeals to students who are not advanced enough to begin the more exhaustive works, and even to junior practitioners of medicine who are not ready for such an outlay. Moreover, it is so concise and clear in its description, and its make-up is so practical, that it becomes for all physicians a valuable book for ready reference; in short, it contains the essentials of internal medicine, stated clearly and in an attractive manner.

HUMAN PHYSIOLOGY. Prepared with special reference to Students of Medicine. By JOSEPH HOWARD RAYMOND, A. M., M. D., Professor of Physiology and Hygiene in the Long Island College Hospital, and Director of Physiology in Hoagland Laboratory, New York City. Second edition, entirely rewritten and greatly enlarged. Octavo, 668 pages, 443 illustrations, 12 of them in colors, and 4 full-page lithographic plates. Philadelphia and London: W. B. Saunders & Co. 1901. [Cloth, \$3.50 net.]

This useful manual appears in greatly enlarged form and is correspondingly increased in value. The increase to four years in college teaching has made it possible to extend the laboratory

courses in this as well as in other branches, hence the author expands his work to meet the changed conditions. The science of physiology, too, has advanced equally with many other subdivisions of medicine, which offers an additional reason for an enlargement of methods of teaching, including working manuals and text-books.

This author has had a teaching experience of more than 25 years and this has served to acquaint him with the needs of students as regards literature. He therefore has prepared this work in accordance with that knowledge, and it appears to be most appropriately constructed. The subdivisions, physiologic chemistry, and the nutritive, nervous, and reproductive functions, that were made in the former work have been retained, but their scope has been very much enlarged. A section on histology has been added, and besides here and there throughout the text enough of this topic is considered to give a better understanding of the physiologic anatomy of the organs under immediate consideration.

There has been much other excellent material added so that, in its enlarged form, the work may justly be classed as a text-book, though never losing entirely its claims as a manual. In other words it is preëminently a book for students, while at the same time it is ample in its scope to serve the needs of the practitioner of medicine—general or special—as a work of reference. We regard it as the best recent contribution to the literature of human physiology.

THE PRACTICAL MEDICAL SERIES OF YEAR BOOKS. Ten volumes. Issued monthly, under the general editorial charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. II. General Surgery. Edited by John B. Murphy, M. D., Professor of Surgery, Northwestern University Medical School. November, 1901. Pp. 515. Chicago: The Year Book Publishers, 40 Dearborn Street. [Cloth, \$2.00.]

The present volume, dated November, 1901, is one of the Practical Medicine Series of Year Books. Of these there are ten covering the entire field of medicine and surgery. The purpose of this work is to present an epitomé of the progress of surgery for the preceding year. The editors and authors evidently have an accurate conception of what a work of this kind should be. The work is published at a low figure and is cheaply printed. A number of illustrations are introduced, the quality of many of which is seriously injured by being half-tones of previous half-tones. As a result the introduction of two series of cross lines into the illustrations gives them a very unsatisfactory appearance and seriously interferes with the definition. It would be wiser if in these cases the illustrations were re-drawn, or if attempts were made to obtain the originals from the authors for purposes of reproduction.

The text of the work fairly represents the advance of surgery for the past year and the editor has shown rare good judgment in

the selection and presentation of his material. The work has the advantage of not attempting to be too voluminous and at the price published should find its way to the desk of many surgeons.

H.R.G.

A MANUAL OF BACTERIOLOGY. By HERBERT U. WILLIAMS, M. D., Professor of Pathology and Bacteriology in the Medical Department of the University of Buffalo. Octavo, pp. 306. With 90 illustrations. Second edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$1.50 net.]

This excellent manual will be welcomed in its second edition by students of bacteriology as a most helpful guide in laboratory work. Dr. Williams is a master of his subject, a careful teacher, and a thorough delineator of laboratory technique. He has put as much of the topic into book form as will prove useful to the student in his earlier researches, and enough to serve as a substantial aid to the medical practitioner who desires to pursue bacteriologic investigations.

The book is somewhat larger than the first edition, rendered so by necessary additions in the revision, but it is still of convenient size for the purposes it is designed to meet. The chapter on surgical disinfection by Dr. Chauncey P. Smith is of great practical importance; and one on disinfectants and antiseptics by Dr. Thomas B. Carpenter, is deserving of careful study. The student and junior physician should master both of these subjects. There is too much so-called disinfection and not enough of the real thing—too much disinfection that does not disinfect. These chapters will serve to correct this evil.

Again, we commend this manual to the beginner and to the physician who would pursue bacteriologic studies after entering practice.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by HENRY W. CATTELL, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume IV. Eleventh series. Philadelphia: J. B. Lippincott Co. 1902 [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

The subjects treated in this number of the clinics are therapeutics, medicine, neurology, surgery, pediatrics, dermatology, and there is a special article on the methods of keeping case records in private practice. Among the contributors are A. Jacobi, Horatio Wood, Jr., Charles H. Burnett, Norman Bridge, Wm. C. Krauss, Charles H. Chetwood, Nicholas Senn, G. Frank Lydston, John Madison Taylor, and William S. Gottheil, at home; and L. Brocq, Albert Mathieu, Pierre Delbet, Sir Dyce

Duckworth, J. Mitchell Bruce, G. Marinesco, P. Quénu, Thomas Jonnesco and James Cantlie, abroad. The special article is written jointly by J. P. Crozer Griffith, Judson Daland, J. K. Mitchell, John H. Musser and Alfred Stengel. The foregoing will convey an idea of the value of the book, the authors being men of recognised standing.

THE HISTORY OF MEDICINE IN THE UNITED STATES. A collection of facts and documents relating to the history of medical science in this country, from the earliest English colonisation to the year 1800. With a supplementary chapter on the discovery of anesthesia. BY FRANCIS RANDOLPH PACKARD, M. D. Octavo, pp. 542. Illustrated. Philadelphia: J. B. Lippincott Co. 1901. [Price, \$4.00.]

Such a book as this is of inestimable value to physicians; it enables them to link the present with the past in their readings and keeps them in touch with the fathers of medicine in this country, men whose sturdy example and wholesome influence laid the foundation for an enduring and honorable profession.

The colonial history is of great interest and it is a pity that the available material is so meager. The history of medical societies founded previous to 1800, is of very great value. It necessarily tells of first things and in this it is of importance. The discovery of anesthesia will be read with much interest by all who feel doubt as to its discoverer and demonstrator.

The entire book is prepared in an attractive way; its subjects are presented in entertaining form. The author has taken great pains to verify his facts and data, so, without doubt, it is by far the best history of the early features of medicine in the United States that has ever been prepared.

THE TECHNIQUE OF SURGICAL GYNECOLOGY. Devoted exclusively to a description of the technique of gynecological operations. By AUSTIN H. GOELET, M. D., Professor of Gynecology in the New York School of Clinical Medicine. Duodecimo, pp. 340. Illustrated. New York: International Journal of Surgery Co. 1901.

The description of operative technic and preparation for operations is quite clear and given in sufficient detail in this work for all needful purposes.

The author has had considerable experience, and it is to be expected that he knows how to prepare patients, surgery, and assistants for operation, and to how the operation should be conducted. The work is limited to this field and in this respect is unique.

The book is not padded with irrelevant material, but goes straight at its task and stops when it is finished. There are a few typographical errors that will no doubt receive attention in a later edition. If there is any criticism to offer, we should incline to regard the author as over fond of a multiplicity of instruments, and of attaching his own name to a number of comparatively unimportant inventions or modifications of those instruments devised by others. However, this is of small con-

sequence as compared with the general usefulness of the book, which we regard as a fixed and determined fact.

DOSE-BOOK AND MANUAL OF PRESCRIPTION WRITING: with a List of Official Drugs and Preparations, and the more important Newer Remedies. By E. Q. THORNTON, M. D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Second edition, revised and enlarged. Octavo, 362 pages, illustrated. Philadelphia and London: W. B. Saunders Co. 1901. [Bound in flexible leather, \$2.00 net.]

This is a convenient book for reference and belongs to a class that seems to be quite popular, especially with junior practitioners of medicine. Its chief value, however, is in the instruction it imparts to the student in regard to writing prescriptions. A correct start should be made in this respect, and then it is apt to last through life. It is so important to observe grammatical accuracy in this work that no amount of time spent upon acquiring the requisite knowledge should be counted as wasted or as devoted to trivialities. The dosage part of the book, though of less consequence, is still of importance and has been well prepared. It contains much information not easily accessible and is commended for its scholarly effort to impart useful knowledge to the ambitious searcher.

REPORT of the Commissioner of Education for the Year 1899-1900. Two volumes. Washington: Government Printing Office. 1901.

This report is of interest to all educators, but some parts of it will attract physicians in particular. Of these we may mention a paper, by Professor W. O. Atwater, of Wesleyan University, Middletown, Conn., read at the Chicago meeting of the department of superintendence, 1900, entitled, Alcohol, Physiology and Superintendence; and of special importance is what is said in it relating to what should be taught in the schools about alcohol. It takes a calm and scientific view of the subject. Another paper of interest is the address by Judge Baldwin, of Connecticut, before the legal education section of the American Bar Association, 1898, on the Readjustment of the Collegiate to the Professional Course. There are, of course, many other important papers and statistics in these two volumes which will bear patient examination. It is a matter of regret that these reports are not printed better and bound stronger.

TEXT-BOOK OF NERVOUS DISEASES. Being a Compendium for the use of Students and Practitioners of Medicine. By CHARLES L. DANA, A. M., M. D., Professor of Nervous Diseases in Cornell University Medical College, etc. Fifth edition, with 244 illustrations. Pp. xiii.—633. New York: William Wood & Co. 1901.

A new edition of this work is always welcomed. In this instance we find the book is practically like the fourth edition, with the exception that there is an excellent chapter upon general paresis. The illustrations are numerous and extremely helpful.

There is a clearness in Dana's descriptions which makes the

treatise a great favorite with students and teachers. We believe that one of the most practical chapters is the one on neurological therapeutics. The author considers in detail special applications of hydrotherapy, electro-therapeutics, vibratory therapeutics, suspension, organic extracts, the rest cure, the Fränkel movements, lumbar puncture, and the use of the newer drugs. The text-book is in every way satisfactory. J.W.P.

MANUAL OF PHYSICAL DIAGNOSIS. For the use of Students and Physicians. By JAMES TYSON, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the University Hospital; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fourth edition, revised and enlarged. Duodecimo. With colored and other illustrations. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, cloth, \$1.50 net.]

Tyson's physical diagnosis is well known to the profession as a careful, accurate guide in the study of the diseases of the different organs of the body. Although not so complete as the works of Musser, Hare, Simon or von Jaksch, it, nevertheless, fills a want long ago felt by the practising physician, and will continue to gain favor with each succeeding edition. The present edition has been carefully revised and somewhat enlarged to meet the demands of the hour. It is similar in appearance to former editions. W.C.K.

THE SURGICAL TREATMENT OF DISFIGUREMENTS AND DEFORMITIES OF THE FACE. By JOHN B. ROBERTS, A. M., M. D., Professor of Surgery in the Philadelphia Polyclinic; Surgeon to the Methodist Hospital. Duodecimo, pp. 72. Second edition, with a chapter on the Reconstruction of Syphilitic Noses. Sixty-two figures. Philadelphia: The Philadelphia Medical Publishing Co. 1901.

The class of deformities discussed in this brochure are among the unsightliest that afflict the human race. The author has had much experience in dealing with them and is entitled to great credit in the skilful surgery which he employs in repairing such disfigurements. The illustrations are varied and graphic, making plain the author's methods, and impressing the reader with their perfection. The chapter on reconstruction of syphilitic noses is a valuable addition to this edition.

SAUNDERS'S QUESTION COMPENDS. Essentials of Physiology. Prepared especially for Students of Medicine, and arranged with questions following each chapter. By SIDNEY P. BUDGETT, M. D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo volume of 233 pages, illustrated with many full-page half-tones. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$1.00 net.]

An entirely new work has been added to Saunders's series of question compends in this little volume on physiology. The book has one very great superiority over many similar works—the questions are placed at the end of each chapter instead of being incorporated in the text. M. J. F.

TRANSACTIONS of the Medical Association of the State of Alabama (The State Board of Health). Annual meeting, held at Selma, April 16-19, 1901. G. P. WALLER, M. D., Secretary.

This book compares favorably with the transactions of the medical societies of larger states, containing many valuable papers of scientific interest. The annual address of the president, called here his "message," is the first paper, and then follow "reports" of the senior and junior vice-presidents. These are some of the unique features of the organisation. There are others that are distinctive, but we need not refer to them in detail. The volume is well edited and is printed in excellent form. The medical profession of Alabama may well be proud of its status; it is well organised and its esprit de corps is enviable.

TRANSACTIONS of the State Medical Association of Texas. Thirty-third annual session, held at Galveston, Texas, April 23, 24, 25 and 26, 1901. H. A. WEST, M. D., Secretary.

This progressive society again presents its annual volume of transactions in attractive form. It is replete with interesting scientific papers and valuable reports of committees. Some of these are discussed but the discussions, generally speaking, are rather meager. It is a book, however, that reflects credit upon the association and upon the distinguished secretary who edited it.

BOOKS RECEIVED.

Diseases of the Intestines. Their Special Pathology, Diagnosis and Treatment. With sections on Anatomy and Physiology, Microscopic and Chemical Examination of the Intestinal Contents, Secretions, Feces and Urine; Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics; Diseases of the Rectum, etc. By John C. Hemmeter, M. D., Philos. D., Professor in the Medical Department of the University of Maryland; Consultant to the University Hospital and Director of the Clinical Laboratory; Author of a treatise on "Diseases of the Stomach," etc. In two volumes. Vol. II. Appendicitis, Tuberculosis, Syphilis, Actinomycosis of Intestine, the Occlusions, Contusions, Rupture, Enterorrhagia, Intestinal Surgery, Atrophy, Abnormalities of Form and Position, Thrombosis, Embolism, Amyloidosis, Neuroses of the Intestines, Intestinal Parasites, Diseases of Rectum. With plates and many other original illustrations. Octavo, 675 pages. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, Vol. II., \$5.00 net; set complete, \$10.00.]

Quiz Compend. Compend of General Pathology. By Alfred Edward Thayer, M. D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital. Containing 78 illustrations. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, 80 cents net.]

Syphilis. A Symposium of Special Contributions from Seventeen Different Writers. New York: E. B. Treat & Co. 1902. [Price, \$1.00.]

A Manual of Gynecology for the use of Students and General Practitioners. By F. H. Davenport, A.B., M.D., Assistant Professor in Gynecology, Harvard Medical School. New (4th) edition, revised and enlarged in one 12mo volume of 402 pages, with 154 illustrations. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$1.75 net.]

Seventeenth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Vols. I. and II. Transmitted to the Governor, November 30, 1900. Benjamin Lee, M. D., Secretary. Wm. Stanley Ray, State Printer of Pennsylvania. 1901.

The American Year-Book of Medicine and Surgery for 1902. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D. In two volumes—Volume I, including General Medicine, Octavo, 700 pages, illustrated; Volume II, General Surgery, Octavo, 684 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. [Price per volume: Cloth, \$3.00 net; half-morocco, \$3.75 net.]

A Practical Manual of Insanity. For the Student and General Practitioner. By Daniel R. Brower, A. M., M. D., LL. D., Professor of Nervous and Mental Diseases in Rush Medical College, in Affiliation with the University of Chicago, and in the Post-Graduate Medical School, Chicago; and Henry M. Bannister, A. M., M. D., formerly Senior Assistant Physician, Illinois Eastern Hospital for the Insane. Handsome octavo of 426 pages, with a large number of full-page inserts. Philadelphia and London: W. B. Saunders & Company. 1902. [Cloth, \$3.00 net.]

Morphinism and Narcomania from Opium, Cocain, Ether, Chloral, Chloroform, and other Narcotic Drugs; also the Etiology, Treatment, and Medicolegal Relations. By T. D. Crothers, M.D., Superintendent of Walnut Lodge Hospital, Conn., Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc., 12mo of 351 pages. Philadelphia and London; W. B. Saunders & Co. 1902. [Cloth, \$2.00 net.]

Johnson's First Aid Manual. Suggestion for Prompt Aid to the Injured in Accidents and Emergencies. Edited by Fred B. Kilmer. Illustrated. Pp. 113. New Brunswick, N. J.: Johnson & Johnson, 1901. [Cloth, 50 cents.]

Progressive Medicine, Vol. I., 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 452 pages, 5 Illustrations. Philadelphia and New York: Lea Brothers and Co. 1902. [Per annum, in four cloth-bound volumes, \$10.00; per volume, \$2.50, by express prepaid to any address.]

Report of the Commissioner of Education. For the year 1899-1900. Volume II. Washington: Government Printing Office. 1901.

Transactions of the Royal Dublin Society. Volume VII. Parts 8-13. 1900.

Proceedings of the Royal Dublin Society. Volume IX. Parts 3 and 4. 1900.

LITERARY NOTES.

DR. W. E. FITCH, founder, and for many years editor and business manager of *The Georgia Journal of Medicine and Surgery*, published at Savannah, Ga., has sold his interest in the publication to his former associate and co-editor, Dr. St. J. B. Graham, who becomes editor, and sole proprietor. The *Journal*, under Dr. Fitch's editorial management has merited the support of the profession, and gradually, year after year, has made for itself a place among the best medical periodicals of the period. Dr.

Fitch will devote his entire attention to the practice of his profession in Savannah.

A TREATISE on smallpox, price \$3.00, is announced for publication early in April by J. B. Lippincott Company. It is written by Dr. George Henry Fox, professor of dermatology in the College of Physicians and Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer, and John H. Huddleston, all of whom are officials of the health department of New York, and have had unusual opportunities for the study and treatment of this disease during the present epidemic.

The work is to be in atlas form, similar to Fox's Photographic Atlas of Skin Diseases, published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs, the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vaccinia, varicella, and diseases with which smallpox is liable to be confounded. These illustrations number 37 and will be grouped into ten colored plates, $9\frac{1}{2} \times 10\frac{1}{4}$ inches, and six black and white photographic plates.

The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

ITEMS.

THE Charles Roome Parmele Company, manufacturing chemists of New York, proprietors and manufacturers of arsenauro, mercauro and other well-known preparations, have recently removed from 92 William Street and 36 Platt Street, to 45 John Street, New York, in order to secure more ample accommodations for their constantly increasing business.

THE validity of the phenacetine patent has been sustained in the United States Circuit Court of Appeals for the third circuit, the court of last resort, in the case of Conrad D. Maurer vs. Farbenfabriken of Elberfeld Company. All infringers, the company now declares, will be prosecuted to the full extent of the law.

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ORIGINAL COMMUNICATIONS.

The Diagnosis and Surgical Treatment of Nephrolithiasis From the Viewpoint of the General Practitioner.

WITH NOTES OF ILLUSTRATIVE CASES.¹

By RAMON GUITÉRAS, M.D., New York.

ONE of the subjects classified as lying on the border-line between the two vast domains—medicine and surgery—and that therefore brings into close community the work of the physician and surgeon, is stone in the kidney.

Causes and Pathology.—The etiology of nephrolithiasis will not be discussed in detail in this paper, as it involves many an abstruse question in the domain of pathologic metabolism, to encroach upon which lies beyond the intention of the writer.

It must be said, however, that there are certain predisposing factors that have been noticed in connection with the occurrence of stone, preëminent among which is that of age; for it has been conclusively proved that this disease is most often met with in persons in the middle of life's highway,—that is, between the ages of 20 and 50 years. Women are more frequently affected than men.

Country and race have some influence upon the development of stone, as warm countries seem to favor it. For example, renal calculi are very common in India. Renal stones are generally stated to be more frequent among the Anglo-Saxons than among the Latin races, especially the Spanish and Spanish Americans. I think, however, that such conclusions are due to the fact that better statistics and more complete reports on this subject have been published in Anglo-Saxon literature than elsewhere. Personally, I have found stone more common in this country among the Italians than in any other race.

1. An address read before the Buffalo Academy of Medicine, January 7, 1902.

Sedentary life with luxurious habits and so-called "high-living" without proper exercise and sufficient oxidation also lead to its formation.

There are two varieties of stone, primary and secondary. The primary stones are formed by the precipitation of substances formed in the kidney without any previous pathological changes in the parenchyma, the stroma, the pelvis or the calyces. Secondary stones are the results of pathological processes in these localities and are formed when certain salts are precipitated, owing to the decomposition of the urine. Of course, a calculus may be originally primary, and by its presence so irritate the surrounding tissues that lesions develop which give rise to secondary calculus deposits over the primary calculus.

Of the primary variety of calculi we have those formed in acid urine and those formed in alkaline urine. The varieties developing in acid urine consist of one or more of the following substances: uric acid, urates, calcium oxalate, cystin, and xanthin. Those formed from alkaline urine consist of calcium carbonate, acid phosphates or calcium, or basic phosphate of calcium.

Secondary calculi are precipitated from alkaline urine rendered so by ammoniacal decomposition, due to some local infection or inflammation. They consist of phosphate of ammonium, phosphate of magnesium, or of phosphate of ammonium and magnesium.

Oxalate of calcium calculi occur twice as frequently as either the uric acid or the phosphatic variety, and produce the worst cases of nephrolithiasis. Of the different varieties enumerated the most frequent in their relative order are: oxalate of lime, uric acid and phosphatic compounds.

Calculi vary greatly in number from one to over 200, and in size from grains of sand to masses, weighing 5 pounds. The usual weight of a calculus is from $\frac{1}{2}$ an ounce to 2 ounces.

Stones are more often found in the right kidney than in the left, while the frequency of stones occurring in both kidneys is variously estimated at from 5 to 50 per cent.

The effects of renal calculi must be considered in connection with the causes and pathology, as a knowledge of the secondary changes in the kidney, the pelvis and the ureter, as well as in other parts affected by renal stones is of importance to the surgeon. The effects of primary calculi may be conveniently grouped under two headings, following the classification of Albar-

ran,¹ Morris,² and other writers on the subject, as the aseptic changes, and the secondary or septic changes.

The aseptic changes of primary calculi begin with a secondary nephritis of calculous origin (*Nephrite diathésique* of Albarran). This is a nephritic inflammation, beginning in the renal epithelium, later involving the interstitial framework of the organ, and according to Albarran, is always present in calculous kidneys. When the calculi have reached a considerable size and have remained in the kidney for a long time, especially if they cause obstruction of the ureter, other lesions may become associated with this nephritis. The first of these is atrophy, which is the result of the interstitial nephritis; in other cases the mechanical obstruction produced by the stone gives rise to a hydro-nephrosis, and finally sometimes the perirenal fat hypertrophies to such an extent that it forms a large lipomatous tumor within which the atrophied and shrunken kidney is enclosed.

The septic lesions of primary calculi are secondary to the aseptic changes. The source of the sepsis is usually an ascending infection from the urethra and bladder (Tuffier) or the bacteria may reach the kidney through the blood or the lymph. The predisposing factors to septic infection which exist in calculous kidney are the traumatic effects of the stones, the calculous nephritis, the urinary retention which they cause, and the capillary congestion of the organ. The results of infection in calculous kidneys are pyelonephritis, pyonephrosis and perinephritis.

The pyelonephritis of renal calculi is characterised by a septic diffuse sclerous nephritis, which was described by Albarran. It has been noted, however, that when the sclerotic processes (which precede the pyelonephritis as results of the secondary aseptic nephritis, of which we have spoken), are sufficiently far advanced, the kidney itself seems better able to resist the invasion of bacteria, and this, according to Albarran, is the reason why nephrolithotomy has been successful in some cases in which there was a pyelitis.

The kidney affected with pyonephrosis as the result of infection and of calculous obstruction of the ureter, usually reaches a considerable size, and often presents a series of loculi filled with purulent material, and containing calculi which are difficult to dislodge from their cavities on account of adhesions. The

1. J. Albarran, *Maladies du Rein et de l'Urètre*, in Delbet et Le Dentu, *Traité de Chirurgie*, J. VIII. Paris, Baillière, 1899.

2. Henry Morris, *Surgical Diseases of the Kidney and Ureter*, Vol. II. London, Cassell, 1901.

abscess cavity may burst and the contents burrow in various directions.

The perirenal fatty capsule is often thickened and the seat of fibrous changes in the presence of renal calculi and infection. If the latter be virulent, there arises a true perinephritis and adhesions may bind the kidney to the surrounding organs,—a fact of importance to be remembered when operating in such cases, as in some instances adhesions exist between the kidney and vena cava. The perinephritis may, of course, suppurate; the pus may burrow in various directions, and may empty through fistulous openings.

The opposite kidney is often the seat of compensatory hypertrophy, in order to make up for the loss of renal tissue occasioned by the presence of stones, and for the atrophic changes in the renal parenchyma of the calculous organ. In other cases the opposite kidney may be the seat of secondary nephritis, due to the excessive strain, and to the great amount of uric acid, oxalates, and phosphates and the like (as the case may be) that are eliminated through it, and, finally, it may be the seat of the same forms of calculi as on the opposite side.

Suppression of urine results when the pelvic orifices of the ureters are occluded by stones. One kidney may thus be incapacitated, and then the other; or both may be put out of work altogether. If the stones become impacted in the ureter further down on their way to the bladder, they may cause ulceration, ureteritis or periureteritis, with the formation of fibrous tissue occluding the canal; or they may perforate into the retroperitoneal or peritoneal cavities, or into the intestine.

Diagnosis.—In considering the clinical features of nephrolithiasis we must take into account, first, that although most patients come to us with symptoms, there is a considerable proportion of cases in which the presence of stones remains unaccompanied by clinical signs. In such cases the stone either remains in the kidney in such a way that it cannot do damage, or is so small that it passes through the ureter into the bladder and is passed out in the urine, or else remains in the bladder as a nucleus for a vesical calculus. Bruce Clark found that in 13 of 24 autopsies on persons in whose kidneys calculi were present, there had been no symptoms whatever referable to nephrolithiasis. The fact is, the symptoms are not always in proportion to the extent of the disease, and I have often been surprised to find

how few symptoms a patient will have when his kidneys have been nearly destroyed by the morbid process.

A second clinical group of cases is one in which the existence of stone is not suspected, because the train of symptoms does not point to any affections of the kidneys, but rather to the trouble in the bladder, the uterus, the ovaries, or the testicles. In such cases the symptoms are reflex in origin, as will be seen from what follows.

In a third group of cases, noted particularly by Morris, there is great mental distress and a febrile movement, but no renal colic occurs.

In the majority of cases there is pain in the lumbar region corresponding to the affected side, or in that side of the abdomen, although there may be a general abdominal pain. This pain often runs down into the groin, or the testes on the affected side. It is of varying degrees of intensity, from a dull ache to the excruciating, sharp, cutting pain of renal colic. It may be continuous, but generally follows exercise, or jolting, although cases have been reported when it occurred at night (Jackson, *British Medical Journal*, 1890, p. 67.)

It is renal colic, however, that usually causes the patient to consult a physician in cases of stone in the kidney, especially if it be associated with or followed by hematuria. It occurs when a freely movable stone of a certain size begins to engage in the mouth of the ureter, or to descend along this canal. The forces which propel a stone along the ureter in such cases are said to be three-fold, viz.: the pressure of pent-up urine behind; the worm-like contraction of the ureter under the irritation produced by a foreign body, and the alternating positive and negative pressure of the act of vomiting which often accompanies the attack of colic.

The clinical picture of a patient in the throes of renal colic is not easily forgotten when once seen. The pallid, anxious face thrown into an expression of most excruciating suffering, and covered with cold sweat; the characteristic posture of the body with flexed trunk and thighs, restlessly moving from one position to another in the agony of the paroxysm—these are sufficiently typical of renal colic to direct our attention to the possibility of stone in the kidney.

The pain in renal colic is the central symptom of the syndrome. Its intensity is said to exceed that of any other pain known to mankind, but this is a difficult question to decide.

At all events, patients have been known to commit suicide in the course of an attack. The pain is acute, paroxysmal, has its chief seat in the loin or in the side of the abdomen, and radiates along the ureter toward the testicles or the labia majora, or occasionally into the thigh, or even into the opposite side of the abdomen. The testes may be retracted during the attack, and may afterward be swollen and tender.

A chill frequently precedes the access of pain, and during the attack the patient may faint or have convulsions. Nausea, vomiting and retching often complicate matters during the attack, and painful and frequent passages of urine tinged with blood, or of blood clots, commonly accompany the seizure. The paroxysm usually lasts from two to three hours, and, as a rule, terminates more or less abruptly, the patient feeling relieved and falling asleep from exhaustion.

In some cases the colicky pains are not so violent and represent a milder form of paroxysm, characterised by tenderness over the course of the ureter, and not accompanied by a sharply localised pain, but merely by a diffuse pain over the abdomen.

It is the cases in which the stone remains in the kidney or pelvis without giving rise to attacks of renal colic that present the greatest difficulties in diagnosis. These cases are characterised by the following cardinal symptoms: Pain, referable to the kidney, or some other organ in reflex relation to it, aggravated by motion, by jolts and jars and lessened by rest; hematuria and pyuria.

Reflex pains or referred pains are often met with in nephrolithiasis and frequently mislead the diagnostician. In such instances the renal region may be free from pain. The pain may be seated in the lumbar spines or may be felt in the sciatic nerve or the lumbar sensory nerves, as in lumbar sciatic neuritis. Guyon, who has studied the reflex pains of nephrolithiasis in detail, classifies them as follows: (1) The renorenal reflex. Pain in the opposite, supposedly healthy, kidney. Morris, in speaking of renorenal reflex says that the pain in the opposite kidney is of an aching character not spasmodic or colicky, is transient and occurs as an accompaniment of pain in the affected side. (2) The renovesical reflex, accompanied by pain in the vesical neck, and by frequent and painful micturition. (3) The renoureteral reflex. The pain is felt along the course of the ureter, which is found to be tender on pressure by rectum. (4) The renoövarian or renouterine reflex and their analogue, the

renotesticular reflex are very misleading and not at all uncommon. (5) The gastrointestinal reflex consists of the phenomenon of "nervous dyspepsia," accounted for by the connection of the vagus with the renal plexus. In rare cases there are attacks of intestinal colic.

If pain be not the reason why a patient consults a physician for this disease it may be the presence of blood in the urine. This is one of the most frequent symptoms of renal calculi, and the bleeding occurs independently of the bloody urine which is passed during or following attacks of renal colic. Morris found it to be present in 41 out of 103 operated cases of stone. It must be said, however, that the amount of blood passed is usually scanty, and often only detectable on microscopic examination. It is aggravated by movement and by prolonged standing and lessened by rest in bed, and is due both to congestion and injury of the tissues by attrition on the part of the stone. Oxalic calculi being rougher than the others are more apt to cause hematuria. It consists of free blood, blood-casts, and frequently ureter-casts, consisting of elongated blood clots.

As the result of a pyelitis which usually occurs in the course of nephrolithiasis and may be slight, the urine contains minute quantities of pus, or the pus may be abundant, the urine having that offensive odor and cloudy precipitate which is characteristic of advanced pyelonephritis.

The examination of the urine of patients with renal stones is a subject of vast importance, which lies beyond the scope of this paper. It is always advisable to have urinary examinations performed by a pathologist or bacteriologist and not to trust to one's own examination, or to that of an interne, in doubtful cases.

The amount of urine is usually decreased. The reaction is, as a rule, markedly acid, except in cases of phosphatic calculi or advanced pyelitis; the specific gravity varies with the amount of dilutents taken; the color is usually darker than normal, and if hematuria be present blood is found mixed with the urine giving it a smoky-brownish or porter-like color. The urine often shows a sediment varying in color from whitish to dark-brown or red. The chemical examination usually shows the presence of albumin and of an excess of uric acid and urates, or of phosphates or of oxalates, as the case may be. When pyelitis is present especially, phosphates appear in excess and are deposited in the sediment.

Microscopic examination shows the presence of blood, pus, epithelium from the tubules, the renal pelvis, the ureter or the bladder; casts (hyaline, granular, epithelial, blood, pus or mixed), and bacteria, and often of small concretions of crystals or masses of crystalline sediments, such as those of calcium oxalate, triple phosphates, uric acid and urates, which point to the nature of the stone in the kidney.

When urine of this kind is found in a patient suffering from pains or colic in the region of the kidney, the pains coming usually during the day after exercise, and associated perhaps with frequency of urination, one may strongly suspect stone in the kidney on the side where the pain is felt, especially if there are no tubercle bacilli in the urine, or any signs of tuberculosis in other organs.

Differentiation.—The number of conditions with which stone in the kidney is confounded is very great, and to go into a detailed consideration of this phase of the question would extend this paper to the size of a monograph.

Stone in the kidney is more apt to be confounded with tuberculosis or tumor of that organ than with any other renal disease. The principal points of differentiation lie in the history. On the side of calculus there may be presence of gout, rheumatism, or lithemia in the individual or in the family, while in that of tuberculosis there may be a tuberculous history in the patient or his family. Tuberculosis of the kidney usually comes on more rapidly and the patient is more cachectic; the hematuria and the frequency of urination often take place at night as well as by day. In renal tuberculosis there may be an involvement of the genito-urinary tract elsewhere, as in the bladder, prostate or testes, and tubercle bacilli will sooner or later be found in the urine, while in cases of calculus the symptoms occur almost always during the day.

In cases of tumor of the kidney the malignancy of the growth is expressed by the cachexia and loss of weight which accompanies these cases. In such patients the hemorrhages are much more abundant and not necessarily associated with moving, or jolting. The organ is usually clearly outlined as a tumor; the urine may contain characteristic cells, and is not so apt to contain crystals. The pain is always in the back and loins.

A movable kidney may also give rise to a dull ache in this region or even to renal colic, but hematuria is always absent or slight, pyuria does not so often develop, and nephritis is not

so commonly associated with movable kidney as with calculus. The former condition is generally found on the right side and most frequently in women. It is usually not accompanied by enlargement, and the kidney may be felt to be movable and may be replaced

Various diseases of the bladder, such as stone, tubercle, tumor, alone or associated with cystitis, congestion or cystitis due to stricture or prostatic hypertrophy, and gonorrheal cystitis, may give rise to pain in the abdomen or back. In these cases pyuria and hematuria may be present, but the epithelium in the urine will be found to be vesical and there will be no kidney elements present. A urethral and rectal examination associated with visual exploration of the bladder by means of an examining cystoscope, will clear up the diagnosis.

Other conditions likely to be mistaken for stone are a group of neuralgias, which may be either parietal, like sciatica or lumbago, intercostal, or inguinal; or else visceral, *i.e.*, renal. The existence of renal neuralgia cannot be denied. It occurs chiefly in neurasthenia and is said to be evoked by the use of certain irritant drugs, such as cantharides. According to Raynaud and Albarran a visceral crisis of locomotor ataxia may be seated in the kidney, and be manifested by neuralgic pain. Malaria, gout, hysteria, and certain forms of nephritis have also been accused of causing renal neuralgia. The attacks are exactly similar to those of true renal colic and may be accompanied by hematuria, so that they may be very puzzling. The pain is, however, not aggravated by motion, as in stone.

A number of other abdominal conditions, such as cholelithiasis, ulcer of the stomach, aneurism of the aorta, appendicitis, and the like, have been confounded with renal calculi.

When we feel reasonably sure that we have a renal calculus to deal with and also that it is on a certain side, it remains for us to prove, as far as possible, that we are right by all the diagnostic means at our command and also to ascertain if there is another kidney present, and, if so, its condition and working power.

It is said that palpation will in certain cases reveal the presence of stones if they are of a sufficient size. This may be true, but I believe it more probable that the enlarged kidney itself is felt, and that stones could not be detected through the hard walls and cushions of urine and pus.

We can, however, often determine the presence of tenderness and mobility by palpation, as well as the size of the organ, which

are important points, inasmuch as an inflamed kidney, especially if it contains a foreign body, is very apt to be enlarged and tender and firmly attached by inflammatory adhesions. A normal kidney cannot, as a rule, be felt, and it is not tender to the touch.

The best method of palpating a kidney is by placing the tips of the fingers of the hand between the last rib and the external border of the sacro-lumbar muscle and to press upward and inward while making counter-pressure with the other hand over the front of the abdomen.

The phonendoscope combined with percussion over the kidney, is said to be of value in delineating the outlines of the organ. It is not, however, absolutely trustworthy as regards the presence of calculi, which it is supposed to indicate by a change in the percussion note.

If we are confident that the kidney on one side is diseased and do not know the condition of the other, we can feel reasonably sure that it is in good working order if it is not enlarged or tender, and if the twenty-four hours urine is of sufficient quantity and contains enough urea. In order to be more certain of its condition we can insert the Harris segregator and examine the urine from either kidney, so as to determine the condition of each. I have used this instrument a number of times and have never had it fail but once, although I can understand how it might give wrong results if not accurately placed after its introduction.

There is, however, an instrument that never fails to tell us which is the healthy or healthier one of the two kidneys, and that is the catheterising cystoscope, provided that one is able to use it; for by this means we can obtain with certainty the urine from each kidney separately without fear of its leaking over the barrier. Unfortunately, however, but few of us are able to use this instrument with any degree of certainty, and I have seen some of the most skilful urologists fail to introduce the catheter, and that, too, in a female patient. Occasionally ureteral catheterisation in the hands of the ordinary practitioner is successful, but more often it is not. I feel, however, that a modern surgeon should never perform a nephrectomy unless he has first catheterised (or had someone catheterise for him) both ureters, has found both kidneys to be present, and the "second kidney" to be healthy enough to eliminate the necessary quantity of urine and waste products after the removal of the diseased organ.

Most of us, however, are not only unable to catheterise the ureter with any degree of confidence in the result, but often cannot even see both of the urethral orifices with an examining cystoscope. I remember a short time ago that together with two of New York's best genito-urinary surgeons, I examined a woman with a large "pus kidney" and not one of us could see the mouth of the ureter.

If the surgeon cannot decide by a visual examination of the bladder that a second kidney is present, and if he does not feel that he can rely upon the Harris instrument, then an exploratory laparotomy is justifiable, as by this means he can at least be sure that a second kidney exists, and can also tell something of its size and general condition. Of course, it may be said that it would be better to go into the loin on both sides and examine the kidneys; that such double incisions would be equally efficacious and would obviate the danger of opening into the peritoneal cavity—all of which is true—but, on the other hand, it would expose the kidney on which the patient must rely principally after an operation to an extra amount of manipulation. Only a few months ago I resorted to this procedure in the case of a woman who was running an intermittent temperature, associated with pain in the right side, in whom the bladder was so small and hemorrhagic that I could not see the ureter.

The clinical history and an off-hand examination does not always tell us whether a patient has nephrolithiasis, and if so, which is the affected side; neither does catheterising the ureters. I will mention, for instance, a case that was still perplexing after ureteral catheterisation.

Merchant, age 48; thin and neurasthenic. Fifteen years ago he had an attack of nephritic colic on the left side. Fourteen years ago he had articular rheumatism and a severe urethral discharge. Twelve years ago he had a colic in his right kidney, lasting eight days. This was the first and last time that he had ever had any pain on that side. Ten years ago he passed some gravel, after which he was well for a few years. For six years he had suffered from dyspepsia, indigestion, headache, dry tongue, flatulence and pain in the back, especially in the left scapular region and loin. He urinated three or four times a day, sometimes oftener.

On examination, two years ago, he had tenderness on palpation in the left kidney. His epididymes on both sides were indurated, especially on the left side. Urethra showed a stricture, 18 French. Urine was alkaline, ammoniacal; specific gravity, 1.017; cloudy, abundant sediment; urea, 1.8 per cent.

Some blood, pus, triple phosphates, vesical and pelvic epithelium; no casts. At a later examination, a phosphatic cast of one of the calyces of the kidney was seen. No vesical calculus was found.

The patient left me, promising to return shortly, but did not do so until two years later, *i.e.*, four months ago. His symptoms had remained the same, and he still had pain on the left side, the right being free from pain. His physician had told him that he had a stone in his left kidney. His urine taken from both kidneys by catheterisation showed from the right kidney only one-sixth as much urine as from the left. The urine of the right kidney was darker, of a higher specific gravity and contained red blood cells, pus in masses, renal epithelium, granular, epithelial, and mixed casts and no crystals. The left kidney had secreted six times as much urine, but the latter was of a lower specific gravity and contained but a few red corpuscles and renal epithelial cells. A bacteriological examination of his urine showed no tubercle bacilli, but many gonococci. The result of this examination made with the urine of the diseased kidney, as well as his symptoms and general condition at that time, compared with those of two years ago, showed that the general condition was about the same, also his cystitis, but that his kidneys were in a worse condition; that he had developed a pyelonephritis on the right side and a pyelitis on the left; that possibly the condition of his right kidney might be a pyelonephritis due to ascending infection from the bladder, following his gonorrheal infection of fourteen years before, and that possibly he might have a stone in the left kidney which had always been the seat of his pain.

Accordingly, I advised him to have an *x-ray* picture taken to see what it would show, and in any case to have an operation performed on the right side to explore the kidney, and perhaps to remove it. He failed to do this, however, and sailed to France a few days later, promising to come back for an operation. He went to Contrexéville to take the waters, as they had benefited him on a former occasion. Since then he had evidently changed his mind; for recently I heard that he had been operated upon in Paris, and that the surgeon had removed a large stone from the right kidney.

This particular case is very interesting, as it shows how large a number of gonococci can be found in the urine fourteen years after an attack of gonorrhea; that although his right kidney had only pained him once and then had remained quiescent; but that, on the other hand, although he had been suffering almost constantly pain of every description in his left kidney for fifteen years, the right kidney was really the more seriously affected of the two, and therefore that all these years he had been suffering from renorenal reflex pain, unless he had also a free and mov-

able stone in the pelvis of his left kidney. But above all, this case shows that we must resort to every means of diagnosis in cases of suspected stone, and, had I insisted upon an *x*-ray picture, I would not have made such a mistake.

The Röntgen rays have been employed in the diagnosis of calculi with a fair measure of success. Although Morris thinks (Vol. II., p. 91, *loc. cit.*) that "hitherto they have afforded but little reliable help in this direction," Guyon (*Comptes Rendus de l'Académie des Sciences*, April 21, 1896,) in communicating the experiments of Chappin and Chaumont to the Academy of Sciences in Paris, showed that uric acid is traversed by *x*-rays, but that in spite of this, uric acid calculi may be radiographed in the kidney. MacIntyre, of Glasgow, (*Lancet*, July 11, 1896,) Morton (*Lancet*, June 4, 1898,) and Swain (*Bristol Med. Chir. Soc.*, 1897,) succeeded in determining the presence of renal stones in living bodies, while Sabrazen, Rivière and Garmaud (*Soc. Anat. et Physiol. de Bordeaux*, Dec. 13, 1897,) and Laurie and Leon (*Lancet*, 1897, I., 169) made satisfactory observations upon cadavers. On the other hand, Guyon and Albarran (quoted by the latter, *loc. cit.*, p. 893,) failed to get radiographs of uric acid calculi in living bodies. Lester Leonard (*Phila. Med. Jour.*, 1898, p. 388,) diagnosticated the presence of uric acid calculi in three cases by the use of specially constructed tubes. Leonard's radiographs are of the highest grade, and in his hands the *x*-ray proved of the greatest value in the diagnosis of nephrolithiasis.

The exploratory incision is the "dernier ressort," settling the question of whether a stone is present in the kidney or not. It would seem that this would at once establish the diagnosis, but I will show by the history of a case that I will report further on that this may fail, even when one considers himself fairly careful in his exploration.

Operative Treatment.—In the operative treatment of nephrolithiasis, the surgeon should never decide beforehand positively what operation he is to perform, but should be governed by what he has learned of the working-power of the affected and the opposite kidney, by the examination of the urine, the general condition of the patient before and during the operation, and the condition in which he finds the kidney after exposing and inspecting it.

If the kidney is a healthy one, that is to say, if there is no pus in the urine, and if we find no evidence of suppuration in the parenchyma or the pelvis during the operation, then a simple

lumbar nephrotomy should be performed. Lumbar nephrotomy consists in making an incision in the loin, exposing the kidney, cutting through its convexity, removing the calculus and then sewing up the kidney. A gauze drain should then be passed down to the organ and the wound in the loin closed, excepting at the point where the drain comes out. This is the ideal operation, and the mortality almost *nil*. But, unfortunately, we find but few such aseptic cases, and those that we have to deal with are usually more advanced. It may be well to say, however, that recovery from the operation is not always assured. and I well remember one case which I considered most promising in which the patient died very quickly. This case was operated upon sometime ago, and perhaps I attempted to do too much, as I very carefully closed the external wound after sewing up the kidney, when I saw that the bleeding had ceased. The case had been found to be an aseptic one, and after removing the stone it seemed as if closing the external wound would do no harm. The case was briefly as follows:

B., 19 years old, tall, heavy, with rather a white, pasty face; complained of pains in his stomach, especially marked after exercise, such as playing ball. On these occasions the pain was quite sharp, and sometimes lasted for several hours, and occasionally he noticed blood in the urine. This pain was generally in the left loin, and often caused him to vomit. He urinated when up and about, if active, 7 or 8 times a day, but not at night.

Examination.—Tenderness on palpation in the left kidney. Urine from left kidney, pale with reddish-brown sediment; trace of albumin; blood isolated and *en masse*; uric acid crystals, renal epithelium; casts—hyaline, granular, epithelium, blood and mixed. From right kidney, color, amber; slight trace of albumin; few hyaline casts; few blood cells; few uric acid crystals.

Operation.—Nephrotomy performed on left kidney. Uric acid stone, freely movable and wedge-shaped, as large as the end of the thumb, found in the pelvis of the kidney. Calculus removed and wound closed. At the end of 24 hours he had passed 24 ounces of bloody urine. Temperature, 102°; pulse, 140; respiration, 36; was vomiting a greenish fluid. His temperature, pulse and respiration continued to go up. On the following day, temperature, 104°; pulse, 180; respiration, 39. Forty-eight hours after the operation the patient's temperature was 102°; pulse, 160, respiration, 48. He had vomited occasionally a yellowish and later a brownish fluid. His bowels had moved, and he had passed 28 ounces of urine. The wound in the abdominal wall had been reopened and drained. There was a slight sero-sanguineous discharge. His temperature and pulse

began to go up again, and a few hours later it was 106.4° . The pulse could not be counted, the respiration was 46. Shortly afterwards he died—60 hours after the operation.

Every possible restorative, stimulant, diuretic and palliative had been given, but none seemed to check his rapid decline. No autopsy was obtained.

Nephrostomy.—If pus be found at the operation, after the kidney is opened and the stone removed, a drainage-tube should be inserted into the pelvis of the kidney and the organ sutured on either side of it. Gauze is then packed about the tube down to the kidney, and the abdominal wound is closed as already mentioned. This is usually a successful operation if we succeed in finding the stone, but sometimes the stone is not found. A case in point was the following:

Housewife, age 36. For about eight years she had had pain in the right lumbar region. She had attacks of fever which would last for a few hours to a few days, which had been called malaria by several physicians. The right side for some time seemed fuller than the left. The woman had given birth ten days before to a seven months' fetus, after which the tumor was noticed, which, it was thought, had caused pressure against the uterus and had given rise to a miscarriage.

Upon examination the woman appeared thin and sallow-looking. Temperature, 101° ; pulse, 94; respiration, 36. Tumor was evident in the right lumbar region extending from the ribs into the iliac fossa and in front beyond the median line. It seemed to be a case of movable kidney with renal obstruction due probably to a kink in the ureter. Patient was sent to the hospital for operation and four hours later her condition became critical. Temperature, 104.6° ; pulse, 140; respiration, 46. No defined tumor could now be felt; a large mass, however, occupied the entire right side of the abdomen; the drive in the ambulance had evidently caused a rupture of the capsule of the kidney and a leakage into the post-renal space. Patient had a vaginal discharge with some fetor. Urine—color, dark; specific gravity, 1022; albumin, pus, blood and urates. The patient's condition was critical and she was kept on opiates and stimulants. On the following day, temperature 99.4° ; pulse, 86.

Then I determined to make a rapid exploratory incision, consequently a lumbar incision was made down to the kidney and about a quart of pus was evacuated. A rupture was found in the lower pole of the organ; an incision was now made into the pelvis of the kidney, the calyces were palpated and the ureters were catheterised, but no stone was found. After this operation she still ran a temperature for several days, when she was curetted and an abscess was found in the broad ligament, which was opened and drained. She still ran a temperature; there was a considerable drainage of pus from the kidney, and a

nephrectomy was performed. The kidney was found to be a scirrhus mass and a stone one and a half inches in diameter was found in a pocket on the other side of the organ communicating with the cavity of the pelvis by a circular route. Her temperature and pulse dropped immediately after the operation, but her puerperal septic condition finally caused her death.

This is an exceedingly interesting case, for lumbar incision was performed, the kidney opened from the rupture into the pelvis in its lower pole. The pelvis was palpated and probed without finding the stone, and yet after its removal, by bending a probe in a certain direction, it could be passed from the point of rupture into the pocket where the calculus was encysted.

Nephrectomy.—If the parenchyma is involved and abscesses are present, or if the kidney is but a sclerosed mass of tissue, or nothing more than a suppurating sac containing stones, then a nephrectomy may be performed instead of a nephrotomy and the organ removed.

There are arguments for and against both these procedures, but the condition of the individual is the main factor to be considered, and the patient's life must never be sacrificed for the sake of performing one operation that is considered more radical than another. A case showing an unfortunate coincidence of disease in the other kidney which had not been recognised before operating, was as follows:

Housewife, aged 40; has been suffering for about two and one-half years with pain and a feeling of distress in umbilical and right lumbar regions, which was diagnosticated as dyspepsia, and for which she had been treated for some time without relief. About six months ago, noticed a small tumor in right lumbar region, which was tender and painful. At times the pain subsided, and at other times it was exaggerated; however, she became much worse with frequent vomiting, loss of appetite, constipation; the tumor grew slowly; the patient was weak and emaciated. Temperature slightly elevated at night. Urine: color, light; specific gravity, 1016; slight amount of albumin; no casts; some pus.

The tumor extended from the ribs on the right side to the iliac region, and as far as the median line. It was hard and tense. Four days after admission, the urine contained a great amount of pus, but later in the day became clear again. This happened quite frequently, but usually the urine was clear and of a low specific gravity. The right ureter was evidently completely occluded at times, during which period the left kidney secreted comparatively normal urine, showing it to be in a healthy condition.

A lumbar incision was made, and a large kidney was brought to view, the capsule of which was of a blue-gray color. There was no perirenal fat. The kidney was very easily freed, and the vessels of the pedicle were ligated, the organ removed, and then the ureter was tied off and severed.

The kidney was a very large one, and upon opening it, there was found about a pint of pus and a number of phosphatic calculi, from the size of a hickory nut to that of an English walnut. The parenchyma was entirely atrophied.

The patient passed no urine for three days when she died of uremia. The condition of the other kidney was that of acute congestion and granular parenchymatous degeneration. It was thought that the other kidney had been comparatively healthy at the time of the operation. This sudden death seems to be rather remarkable, when I consider that on one occasion I was so unfortunate as to remove the only kidney that the patient possessed, and yet he lived for eight days and was very comfortable during six.

I remember a number of cases of secondary nephrectomy some of which were performed by me, the patients having been referred to me for this operation; one in which a nephrotomy had been performed, but the condition of the patient was not sufficiently good at the time of the operation for the removal of the organ, and it was thought best to drain and wait until the patient's health had been built up, at the same time watching his general condition and that of the urine; and yet another in which a renal fistula remained, and the amount of suppuration was such that it seemed to weaken the patient and was pulling him down instead of allowing him to improve.

Secondary nephrectomy is a very difficult operation, as in such cases the kidney has lost its form, the adhesions are often more dense than at the preceding operation and there is pus and urine leaking into the operative field,—a great source of danger, as the peritoneal cavity is at times opened in dissecting away dense peritoneal adhesions from the kidney capsule. In such cases, it is better at times not to do too much, as is illustrated by the following case:

A married woman, 28 years of age, who had been operated upon by nephrostomy and had left the hospital with a renal fistula, came back about six months afterward for further treatment, saying that she was unfit for her household duties on account of her ill health, due to this suppurative condition. I made an incision around the fistula, went down to the kidney, removed the tissue comprising the fistulous tract and began to enucleate the kidney. The kidney seemed to be freed very

easily for a case of secondary nephrectomy, and the mass in my hand seemed to be large enough to be a kidney of good size, although it was not so hard and sclerosed as usual. On closer inspection I found I had shelled the kidney away from its capsule which was very thick, and firmly adherent to the surrounding tissues. I could easily have passed a ligature about the mass, ligated it and then either removed it (decortication), or allowed it to slough away, but instead I removed the kidney capsule with a great deal of difficulty, having to break up adhesions to the surrounding viscera, the result of which was, that the patient died in a few hours from shock. A case of this kind shows us that, although the result would have been most satisfactory had the nephrectomy been successful, it was, instead, the direct means of shortening the woman's life.

Cases of this kind teach us to proceed with more care, and not to resort to measures that would occur to us when we felt bolder. Shortly after this last case, a most unusual case came under my care, which shows us what can become of a kidney in time, and which might have resulted as disastrously as the last case, had I pursued the same tactics.

A musician, aged 48, had been suffering for sometime with pain in the left side. Two years ago an abscess developed in the left lumbar region. This was opened, and since then there has been a constant discharge from the fistula, sometimes more profuse than at others. This discharge began growing less profuse of late, but it was still a great cause for discomfort, and he had made up his mind on his visit to New York to have an operation performed. An examination of the fistula showed that it extended down in the direction of the kidney. The urine was normal, with the exception of some pus and a few vesical and pelvic epithelia.

An incision was made over the sinus and along the outside of the erector spinæ muscle from the 12th rib downward, with the idea of discovering the source of the abscess. This led down to a space beneath the deep muscular layer where a foreign body was found which proved to be a phosphatic calculus an inch long, and half an inch thick. Continuing my dissection, I found a thin sclerosed kidney, the parenchyma of which was almost entirely destroyed, possessing simply a very much thickened capsule bound down by dense adhesions that added to its thickness. It was evidently the remains of a calculous pyonephrosis that had broken into the perinephritic tissue, allowing the stone to escape, thus giving rise to a perinephritic lumbar abscess. This was opened by a small incision, evacuating the pus and leaving a renal fistula. The stone was lodged between the posterior wall of the kidney and the muscular layer of the abdominal wall adjoining it. The kidney could not be freed without risk from its anterior adhesions, and so the

posterior half was removed and the anterior half was allowed to remain. The patient made an uneventful recovery and left the hospital with the incision nearly healed.

The case is instructive as showing how a stone can remain outside the kidney for presumably a long time and how a kidney can become so changed that it is not recognized at first as such.

I will mention still another interesting case of secondary nephrectomy to illustrate some complications which may take place:

A laborer, aged 22, entered the hospital saying that eleven days before he had fallen from a height of twenty-five feet, striking on his left side. This hurt him so much that he could not get up, so some of his friends carried him away from the spot, and after a short rest he walked home. Before this he had always been well, but a few days after the accident he noticed a painful swelling on the left side. On entering the hospital, there was a tumor occupying almost the whole abdominal cavity, although the left loin bulged more than the right. The urine was negative, the temperature 101.6° , the pulse 88, and the respiration 20.

An exploratory incision was made over the tumor in the left semilunar line, and the peritoneum was cut through. There was practically no peritoneal cavity, for the back part, instead of being a hollow in which the viscera lie, was pushed up against the anterior wall like a dome, and the intestines were stretched out like so many ribbons. The tumor was seen to be postperitoneal, the anterior incision was accordingly sewn up, and a posterior, lumbar incision was made on the same side into the retroperitoneal space, when $2\frac{1}{2}$ gallons of a wine-colored fluid, consisting of mixed blood and urine, escaped. There was a rent in the lower part of the kidney, evidently caused by the fall. The pelvis was opened through the rent, but no stone could be felt. A tube was put into the kidney for drainage. The patient was much relieved by the operation, but began to swell again at the end of a week. It was found that the tube had slipped between the erector spinæ muscle and the skin. Another opening was then made down to the kidney, $3\frac{1}{2}$ quarts of urine and pus evacuated, and the tube reinserted into the kidney. The kidney was a large sac, while the bladder urine was normal, showing that there must have been an impediment in the ureter.

The patient was again very much relieved, but continued to run a slight temperature. As he was losing ground, I decided to perform a more radical operation. On reopening the incision, I found that the kidney consisted of a large sac, the parenchyma having been destroyed; that the mouth of the ureter and its first portion was very much dilated, and that the adhesions were very dense about the kidney, extending down to the ureter.

The duct was very much thickened as far as could be reached, and just below the brim of the pelvis there was probably a calculus, with ureteritis and a mass of adhesions surrounding it. A ureteral catheter could not be passed beyond this point. It seemed to me that this kidney was useless, and that it would be easier to perform nephrectomy than to remove the stone from the ureter and that nephrectomy would be the better procedure in the patient's condition. The mass of adhesions were seized above and below with hysterectomy forceps, transfixed and tied. The pedicle was very wide, spread out like a fan, and the vessels were adherent. It was accordingly transfixed, and when one of the vessels was wounded, giving rise to considerable hemorrhage, a double ligature was tied upon it. As the bleeding continued in spite of this, a curved hysterectomy clamp was placed upon the pedicle inside of the ligature. The patient was then put to bed with the forceps in place, and the latter were removed in four days.

This is the second time that I had to leave forceps in place on a renal pedicle. It was very trying for the patient, who was obliged to lie on his side for four days, for if he turned over on his back, the ends of the forceps might puncture the intestines, or the blades might spring, giving rise to secondary hemorrhage.

Position of the Patient.—There are many different positions in which the patient may be placed in kidney operations. Personally, I prefer having them lie at full length on the unaffected side, with a sand-bag of sufficient size under the loin to cause the affected side to bulge to its fullest extent, thus giving the greatest possible space between the ribs and the iliac crest. A sand-bag of similar size is to be placed under the patient's neck, on the same side.

The *incision* that I usually make is a semilunar one, extending from just above the angle made by the erector spinæ with the last rib, along the outer border of the erector spinæ, nearly down to the crest of the ilium, where it curves forward to the anterior superior spine. Naturally, I do not always cut so far, but this is the line of incision.

In *palpating* the kidney after it has been exposed, the organ is taken between the thumb and fingers of the one hand, while with the thumb and fingers of the other hand, it is gone over its entire extent, pressing into the calyces on either side, and following the dilatations down the ureter.

Needling of the kidney is of little value, and I do not know that I have ever accomplished much by this means.

Aspiration is, on the other hand, very useful if the kidney is pyonephrotic, hydronephrotic, or sacculated, as it allows us to puncture it and then, by attaching a piece of tubing to the canula, to empty the contents outside of the operative field. The cavity can also be washed out through this instrument. After the kidney cavity has been emptied, stones can be more easily felt through the walls than when it is full of fluid so that the stones have a fluid cushion over them.

In *nephrotomy* the incision is the same as just described, the kidney is opened through its convexity, and then closed by suture of catgut going through the cortex at the superficial part of the cut. I use alternating sutures of chromicized, and plain catgut, and put in a gauze drain down to the surface of the kidney.

In *nephrostomy* the operation is the same except that a tube is inserted into the pelvis of the kidney and tied in for some days. I frequently leave a drain in for two weeks, washing the pelvis out twice a day with a boric acid solution, and every other day with a solution of nitrate of silver. Some prefer inserting a ureteral catheter up into the pelvis of the kidney through the bladder. Others prefer passing it down through the pelvis into the bladder, and then catching the end with a lithotrite and pulling it out through the urethra. If that is done, it is well to attach a thread to the kidney end of the catheter to prevent it from being drawn into the bladder.

Nephrectomy is a much more dangerous operation than nephrotomy, as there are more adhesions to be broken up, and there is therefore more danger of breaking into the peritoneal cavity, the colon or duodenum. In the first instance, a fatal peritonitis may ensue, while in the other case an intestinal fistula would result. I have cut through the peritoneum accidentally in two different cases. In the first instance I cut through both the peritoneum and the kidney in separating a sacculated organ; but, notwithstanding that there was some pus and urine in the cavity, by quickly seizing the sides of the rent, sponging it, and sewing it up, no infection resulted. In another case I tore the peritoneum over the liver, so that I could see that organ but I walled it off and drained it effectively, so that there was no infection of the cavity. Another reason why nephrectomy is more dangerous is because so much extra work is suddenly thrown upon the other kidney, which has perhaps been incapacitated somewhat by the anesthetic.

Treatment of the Pedicle.--The pedicle varies in different kidneys. Sometimes the ureter can be separated with ease from the rest of the pedicle and the ligature passed between the vessels, while at other times they are all three *en masse*. The ureter can usually be separated, and after clamping the pedicle, a blunt-pointed needle, carrying a ligature, can be passed through it and the ligature tied in a double loop on the side. Later, if necessary, another ligature may be applied over the entire pedicle. Occasionally, the ligature does not hold well, but slips, and then there is a bad hemorrhage. In such cases clamps must be immediately put on the pedicle, and the hemorrhage arrested.

In two cases operated upon by me, clamps had to be used and left *in situ* for four days. In one of these a vessel of the pedicle was transfixed, and in the other the ligature had slipped. The safest material for ligatures is braided silk. In order to be on the safe side, if everything fails, I have devised a clamp which will fit any pedicle and may be left *in situ* without danger of injury to the intestines by pressure.

PROGNOSIS.

The prognosis of operations for renal calculi is always serious, when we remember the risk of anuria and of septic complications, and also the effects of nephrolithiasis upon the parenchyma of the kidneys. The results of operations collected by Albarran, Gross, Legueu, McCosh, Morris and Newman, show that early operation is advisable and that nephrotomy is the operation of choice, giving the smallest mortality. Legueu gave a mortality of 5 per cent. in his series of nephrotomies and Morris still reduced this figure to 2 per cent. A long-standing or permanent fistula occurred in his cases in only 6 per cent. after nephrolithotomy, nephrotomy, and nephrectomy for stone.

Results of Operations.--In a collection of statistics made by Morris from the operations published in America and England between 1883 and 1893 there were: (1) 115 nephrotomies with 103 recoveries and 12 deaths—13.8 per cent.; (2) 32 nephrectomies with 25 recoveries and 7 deaths—21.8 per cent.

The results vary greatly according to the presence or absence of septic complications in the kidney, thus: (1) In aseptic cases the mortality after nephrostomy was less than 4 per cent.; (2) in septic cases the mortality after nephrostomy was 20 per cent, but has been as low as 10 per cent.; (3) in septic cases (*a*) pri-

mary nephrectomy gave mortality of 33 per cent., which of late has gone down to 20 per cent.; (b) secondary nephrectomy gave 23 per cent. mortality.

AFTER-TREATMENT.

The after-treatment of patients who have passed through an operation for stone in the kidney is very important, as upon this may depend the ultimate result of the operation.

The best position for such a patient is on the back and with pillows arranged in such a way that there is no pressure upon the wound. This detail is especially important in cases where drainage is used.

The dressing of such wounds does not differ from ordinary operative wounds of the abdominal cavity. In septic cases drainage should be maintained according to the indications, until the fistula heals up. For this purpose, dry gauze wicks will be usually found effective, but sometimes drainage-tubes placed in the pelvis of the kidney are necessary. In ordinary aseptic nephrotomies, the gauze should be inserted down to, and not into, the kidney. A binder is placed over the gauze pad in the loin.

The immediate after-treatment concerns itself with moderating the shock and does not present any special peculiarities. The danger of shock being over, that of anuria is to be foreseen and prevented as much as possible by all the means at our command. These include the administration of bland fluids; at first hot water, then milk and alkaline mineral waters, saline injections and infusions; hot packs; diuretics; diaphoretics; purgatives, and the use of pilocarpine subcutaneously. Retention of urine should be prevented by passing the catheter as often as is necessary to be sure that the bladder is empty.

The bowels should be moved by salines on the second day after the operation, aided perhaps by enemas of soap-suds. The dressing may be left undisturbed until the third day if the temperature remains normal, and if there is no excessive discharge from the wound. Otherwise it should be renewed sooner or more often according to the amount of discharge and general condition of the patient. Perineal suppuration and the formation of pockets of pus may take place, requiring opening and draining until healed.

The duration of the after-treatment is usually two weeks, but this period is often prolonged to four or six weeks by sup-

purative complications. When the wound has finally closed, an abdominal belt or some other means of support should be worn to diminish the danger of hernia, particularly in cases in which an extensive abdominal lumbar incision has been made.

75 WEST FIFTY-FIFTH STREET.

Adenoids in Relation to Structural Changes.¹

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YOU will pardon me if I begin my paper tonight with a few fundamental propositions which are doubtless clear to everyone of you, in order to make more clear and consecutive subsequent details which may not be so well known.

By adenoids we understand a hypertrophied condition of the lymphoid tissues, normally found in the vault of the pharynx, posterior to the nasal openings. In structure these tissues form a portion of what is known as the tonsillar ring, composed of the faucial tonsils on either side, the lingual tonsils, consisting of a number of enlargements at the base of the tongue, and the pharyngeal tonsil in the vault of the pharynx.

In a normal condition this last, the pharyngeal, or, as it is sometimes called, Luschka's tonsil, consists of a number of lymph follicles in the mucous membrane, surrounded by connective tissue. There is a soft variety of what is still called adenoids, which is simply an enlargement of this mucous tissue; the enlargement and hardening of the connective tissue is quite another thing. It has been deplored that either should be called adenoids, for not even the latter, or true adenoid, is a hypertrophy of the lymph gland. Practically it might almost as well be, however, for the contraction and hardening of the surrounding tissue cuts off the lymph flow as completely as if it were the lymph vessels themselves that were affected.

It must be remembered that the lymphatic tract is the channel through which the nutritive elements of the blood are carried to their destination. The lymph in the human body is its life. It is the food of the cell. Upon its free flow is dependent the functional activity and the normal development of every tissue.

The lymphatic glands in the vault of the pharynx are part of a chain extending through the openings of the skull, carrying nutrition directly to the brain itself. Immediately above this

1. Read before the New York Institute of Stomatology, New York City, February 12, 1902.

region is the sella turcica, which contains the pituitary body. Those of you who have been following modern medical research, will remember that in the strange and interesting condition called acromegalia, or giantism, in which abnormal enlargement of the whole bony structure occurs, post-mortem investigations have discovered an enlargement of this pituitary body as a most constant feature.

The pituitary body is composed of two lobes, one of which is true brain tissue, and the other a lymphatic gland. The chain is continuous from the lymphoid tissue in the vault of the pharynx to the substance of this gland itself.

Now when we realise how profound is the disturbance of nutrition, throughout the entire system, when the functions of the pituitary body are disturbed, it may be readily understood that any obstruction to the free flow of lymph through glands so nearly adjacent as those of the pharynx, might seriously interfere in other ways with the processes of development.

A disturbance of function always precedes a change of structure; and if it can be shown that functional disturbances are produced in adjacent organs by hypertrophies of the lymphoid tissues in the pharynx and the post-nasal space, the conclusion is justified that in case the hypertrophies are allowed to continue, structural changes must follow.

Should these hypertrophies occur during the period of development in children we are warranted in making the tentative deduction that where functional disturbances have been observed, interferences with development is likely to occur, as structural changes would in an adult.

Now, clinically, the relationships between adenoids and deformities of the face, nose and chest, have been so constantly observed that the facial appearance has come to be accepted as a characteristic indication of the presence of adenoid vegetations in the naso-pharynx.

Their relationship to some forms of ear disease, while often recognised, has not yet received the attention which its importance demands, while the connection of hypertrophies of this nature with the eye, and its development, has scarcely received any consideration whatsoever. Indeed, I cannot find that this aspect of the subject has been studied at all.

The typical adenoid face is well known. The enlargement of tissue obstructing the posterior nares so narrows the calibre of these openings that breathing is possible only with the mouth

partially open. The upper lip is commonly shortened, the lower lip drops. This not only gives a stupid expression to the face, but the mental processes are actually slow. The child finds difficulty in concentrating the attention on any subject and reflex symptoms of the most varied character are not uncommon. (Among these may be mentioned the night terrors from which children suffer, wetting the bed, persistent headaches, not relieved by ordinary measures, marked catarrhal symptoms, and the like.

The form of skull which is found so commonly in cases of this character is that in which the upper jaw—sometimes indeed the lower as well—is narrowed laterally. The face is compressed from side to side, and the bony palate forms a high arch. The teeth are so crowded that they find no room for regular eruption, and to the unpleasant rat-shaped face, is added therefore, the disfigurement of an ill-shaped mouth with irregular teeth. The high arch constituting the bones of the roof of the mouth presses up the septum of the nose, causing it to deviate, and laying the foundation for future obstructions in the nostril.

In a word, the mechanical fact of crowding the face together throws all the bony structures out of their true relationships and is the foundation of disturbances of a most serious character.

Much thought has been given to the manner in which this peculiar conformation occurs, and the conclusion seems to have been that the obstruction of the nose by the adenoids, necessitating mouth breathing, has gradually drawn up the, as yet, plastic structure of the roof of the mouth, until this conformation has resulted. That this is not a complete explanation, although it may be a contributing element, is shown by two facts; first, that the condition is sometimes present at so early an age that it could not have been produced by suction, as this process would necessitate time, and the condition must have been congenital,¹ and, secondly, because it has been exhibited in branches of families to such an extent that the element of heredity must enter largely into it.

A case that came under my observation recently was that of twin children, in one of whom this facial contortion was conspicuous, while in the other the face was broad and the jaws roomy. The first child was a mouth-breather from birth. The mother assured me that this child was the elder and had been

1. Chauréau operated on over fifty newborn infants. Vide *Gaz. Lebdom. de Med. et de Clin.*, April 8, 1900.

carried low in the pelvis, leading to the possible inference that the weight of the other child, by continued pressure, might have changed the shape of the skull.

The facial conformation characteristic of this condition frequently is found in a mother and her whole family of children.

It would be interesting to know whether a narrow pelvis might not sometimes be instrumental in producing the narrow head, which is the foundation of the whole condition. But while all this affords a fascinating field for speculation and theory, it is not essential that we should know how it is produced; it is sufficient to realise that a condition which will so crowd the jaws that the teeth have not sufficient room for their eruption, may also so impinge upon the lymph channels as to produce strangulation of these structures with subsequent hyper-nutrition and the abnormal development of connective tissues, which we call adenoids.

Therefore, although the consensus of opinion seems to have been that suctional breathing, the result of adenoids, has been the cause of the narrowed face and head with all the attendant symptoms which we have been considering, I cannot but believe it more probable that the reverse is the fact. That the narrow head and face, having been produced by any means whatsoever, would naturally result in obstruction of lymph passages, with all the varied and unfortunate phenomena which such obstruction implies. (I should say in parenthesis, that the narrow face with its attendant obstructions is not the only thing that could crowd upon the delicate developing tissues until adenoid growths result. But cases where abnormalities of the face are not present would be the concern of the general physician, not of the dental surgeon, and therefore will not be considered in this paper.) If my theory is correct, its importance to the dental profession is obvious.

By an early expansion of the jaw, not only is the unpleasant rat-mouth molded into better form and the teeth given room to develop properly, the bony arch lowered, and the lips thus brought into place, the nasal septum straightened and the features given a dignity, and the mouth an efficiency, that they would otherwise lack, but the lymph channels are unstopped. The first of these are chiefly mechanical results, the latter is concerned with the essential elements of structural nutrition.

The different organs that may be affected when nutrition is interfered with, and the various ways in which deviations from

the normal occur, interest chiefly, of course, the general physician. But the whole subject, even pushed to somewhat wearisome detail, is of importance to the dental surgeon as it urges upon him the necessity of recognising the less striking cases of this formation. Then, when recognised, in instances where the facial deformities are not extreme, or but slightly apparent, there is sometimes difficulty in persuading the parents to submit children to surgical interference, which the dentist must insist upon. The process is a long and expensive one, and entails not a little discomfort, and the parent is likely to urge postponement, hoping that the necessity for the operation may disappear with growth. A knowledge of the remote and serious difficulties which may be the outcome of this condition, will afford the surgeon in the several details, many weapons for the defense of his position.

One of the most obvious effects of adenoid obstructions in the vault of the pharynx is the mechanical interference with the ventilation of the middle-ear through the Eustachian tubes. According to the location of the adenoid growths, either one or both sides may be involved. The necessity of an unimpeded passage through the nose, as related to the ear, may be immediately demonstrated, in a normal condition, by the simple experiment of closing the nostrils. This may be made more clear by at the same time trying to swallow. We find this same process emphasised by a common cold in the head, which gives the sensation known as a stuffy feeling in the head and ears.

Now with enlarged tissues in the throat it requires a very slight inflammation to so interfere with the mouths of the Eustachian tubes, as to almost completely shut off the entrance of air. The continuity of tissue readily allows an extension of the inflammation to the middle-ear; the drum membrane also becomes inflamed. The swollen tissues of the tympanum ultimately fill with pus and the pain is excruciating until the membrane is ruptured, or an opening artificially made by the surgeon's knife, and we have all the classic symptoms of otitis, with the possible resultant conditions of a chronic otorrhea, mastoid involvement, cerebral abscess, sinus thrombosis, or even general septicemia. *I think it rarely happens when children have repeated attacks of earache, that investigation will not show the presence of adenoids.*

The continued obstruction of the Eustachian tubes without inflammatory complications develops a progressive form of

catarrhal deafness, for which no relief can be obtained as long as the obstructions continue.

This is a kind of chronic deafness, the origin of which is frequently overlooked. In the course of time organic changes occur in the structures of the middle-ear, such as retraction and thickening of the drum membrane, adhesions at the joints of the ossiculæ, and in some cases, involvements of the nervous structures of the inner ear itself, with permanent narrowing of the Eustachian tube. It is, of course, then too late for the removal of the cause to produce beneficial results. With a knowledge of these facts it is obvious that no case of deafness in a child should ever be allowed to continue without a thorough examination of the throat to determine whether obstructions are present or not.

The large number of deaf mutes in whom adenoid vegetations are found to exist would seem to justify the conclusion that these obstructions were either congenital or pre-natal, and that deafness being present at so early a period allowed the unused ear structures to degenerate, while the brain center for audition remained undeveloped.

The remarkable experiments of Urbanschitsch in the training of mutes with ear trumpets, would indicate that in many of these cases some degree of hearing might be secured by training the ear, if the auditory passages are free from obstructions.

Of course, it is only before structural changes have taken place that beneficial results may be anticipated.

Structural changes take place in a comparatively short time, when, added to disuse, we have a choking of the channels of nutrition. The presence of adenoids in the throat may, therefore, be responsible for structural changes in the ear, and not many years be required in the process. This makes evident the necessity for careful diagnosis and prompt care of young children when these conditions exist.

It is an accepted idea that adenoids left to themselves will atrophy at adolescence, but this is only partially true. The growth may, and probably does, shrink, somewhat, but when connective tissue changes have once occurred, the adenoid persists, although the enlargement of the vault of the pharynx coincident with normal growth lifts the enlarged tissue so that it no longer obviously obstructs the nares, and while it may be producing disastrous changes its presence is often totally unsuspected.

I have myself removed large adenoids from a man 35 years of age, very greatly relieving his deafness in one ear. In the other tissue changes had occurred to such a degree that improvement of hearing was impossible.

It is the persistence of these unrecognised progressive tissue changes that lays the foundation for much of the incurable deafness of adult life. And when these are the result of abnormal growths which may in turn be the result of abnormal mouth development, not only must the growths be removed, but the care of the jaws and teeth must not be too long postponed.

Now I have reason to believe that the obstruction of the flow of lymph carrying nutrient elements to the ear, has possibly as much to do with the results, as the mechanical obstructions, shutting off the Eustachian tubes. But upon this subject the final word has by no means yet been said. When we speak of the eye, the dental relationship would seem to be less apparent, but as a matter of fact we find here similar conditions, giving rise to equally marked results.

And if my theory is correct, that distorted facial development produces adenoidal growths, and that adenoids are responsible for various eye troubles not hitherto traceable to any direct cause, the relationship is discovered to be intimate.

If, as was shown in regard to the ear, functional difficulties arise in conjunction with adenoids and disappear on their removal, and we remember that structural changes invariably follow a persistent aberration of function, we may say that here too, similar conclusions follow like premises. That is to say, structural changes in the eye may occur as the result of lymphoid hypertrophies. And, furthermore, if these obstructions to normal nutrition occur during the plastic period before development is complete, they may interfere with the normal growth of the organ, and arrested development be the result.

No one, two, or three cases would be sufficient to prove the relationships of adenoids to disturbances of the eyes, but when over and over again cases that have evaded all ordinary medical or surgical measures have been immediately relieved by the removal of lymphoid growths, the causative relationship would seem to be demonstrated.

One of the commonest conditions which I have observed in this connection is that in which the conjunctiva is congested, the eyes weak and suffused, a condition for which local measures

have proved in many instances totally insufficient, but which was at once relieved by the discovery and removal of adenoids.¹

A peculiarly interesting case came under my observation recently of a child having a persistent overflow of tears from one eye. The lachrymal duct was found perfectly normal, and the overflow, which had for several years resisted treatment, ceased within a week after the removal of a small mass of adenoids that had been too slight to occasion the child any other discomfort.

Various weaknesses of the ocular muscles, for which suitable glasses and even operative measures have been unavailing, have regained their normal balance after the naso-pharynx has been cleared.

Lauren's case, in which strabismus disappeared after an operation for adenoids, and Miles's cases of asthenopia, which subsided after similar operations, lead directly, as do all of these cases, to a consideration of the development of the eye and the causes which may modify it.

Now, at birth, the eye of a child is in the same undeveloped condition as are the other organs. As the child grows the eye develops, enlarges, and becomes functionally able to do the work which is required of it. This process of development extends, normally, through the growing period of the child's life. If, for any reason, it should be interrupted, the eye remains, throughout life, that of the child. It is then too flat, never having reached a full contour, and is called a hypermetropied, or over-sighted eye. Such eyes are peculiarly prone to convergence and are apt to be dull-sighted.

Ziem² has recently made some very interesting experiments, that are most suggestive in this connection. He sewed up the nostrils of young rabbits and found that on the side from which air was excluded, the eye remained in a permanently undeveloped condition. In other words, it remained a flat or hypermetropic eye, while that on the opposite side reached its normal development.

Now in my own experience, such a large number of these hypermetropic and squinting eyes in children, up to about twelve years of age, have been found in connection with lymphoid hypertrophies, that it is impossible to believe the association accidental.

1. Coppez and Snellen have reported cases of follicular conjunctivitis cured by the removal of adenoids. Vide *Arch. d'Ophthal.*, January, 1899.

2. *Monatsschrift für Ohrenheilkunde*, Vol. 31, No. 12.

If it be true that the nutritive functions of the head are so profoundly impaired by naso-pharyngeal hypertrophies, and if it be also true that these are again contingent upon corrigible deformities of the skull, I can only say again, if possible with still more emphasis, that as the responsibility in this class of cases often falls upon you, my friends of the dental profession, long before any developments occur which would bring them to the care of the general surgeon, the entire subject must be regarded as of an importance which can hardly be exaggerated.

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Indian Medicine.

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IN presenting to you some of the phases of Indian medicine, I wish to disclaim any pretense to being a student of Indian practices. I merely tell what I saw and learned of a most interesting method of practising medicine among the Redmen during a six months' association with the Sioux Indians and their really remarkable medicine man and his mysterious medical ways

Whatever one may say of Indian medicine men they must as a class be given credit for earnestness and a superior sort of intelligence, and while it must be admitted that some of their practices and methods are strongly flavored with a tinge of Christian science and allied fakes, their prayers are used merely to add to the efficacy of the drugs which they administer or the massaging which they practise, and are the natural result of superstition inborn generation after generation. In explanation of this it is well to know that the Indian looks at everything upside down, so to speak, and he is imitative. The medicine man occupies a unique position in his tribe. His work is not strictly confined to the practice of medicine; he is a man of consequence and his fastings and his prayers and his self-denials make him, in the eyes of his people, a man who is in close communion with the spirits of the air and the waters and the elements.

The Cheyenne, or Black Apache medicine men, for instance, when a storm arises in the mountains above the camp, sprinkle about the ground and toss into the air handfuls of

corn meal and dances and prays that the storm may remain in the mountains and not come down into the valley to destroy the crops or the homes of his people. Corn meal is used because it is quite nearly sacred in the eyes of an Indian. Corn is a gift of the gods and it is what gives the tribe life; and if they make an offering of what gives them life, they argue that the gods will turn the storm that they may not die. They believe that the earth is peopled by beasts and gods. To the Indian the animals, the snakes, the birds, the fish and every living thing which is not human is a god and the men are the beasts. And they have reached this conclusion by a simple method of reasoning. Look, they say, a bird flies through the air; if a man tried to do that he would be killed; a snake moves along the ground on his belly, that a man cannot do; fish live in water, if a man did that he would be drowned; hence, all these things are gods and because man cannot do what they do and live he is a beast.

One of the most interesting features of the Pan-American Exposition was the Indian Congress, where lived in all their glory of dirt, gaudy dress and laziness, some 200 Indians of various tribes. They lived there as they lived on the plains, in tepees; they cooked their food over camp fires, the squaws did all the work and the men smoked cigarettes and posed for the kodak fiend when they were not gambling. It was all very pretty and picturesque, the only feature of savage life lacking being the scalping of the pale face. The simple-minded red man made up for this, however, by skinning his beloved white brother every time he sold him a piece of bead work or a handful of feathers.

As sanitary officer of the exposition it was a part of my duty to watch over the health and living methods of the various natives on the Midway. I visited each village several times a day and while I was tolerated in the Philippines, welcomed in Venice, damned in Damascus and cursed in Cairo, the Indians looked upon me by virtue of my office as a chief and treated me as such, respecting and obeying orders regarding health matters. Not many days had passed before it was generally understood that I was a medicine man and the medicine man of the tribes, War Bonnet, a grave and dignified old Indian, sought me out and through an interpreter, begged in the flowery language of the Sioux, that I honor him by a visit to his tepee.

I will confess that my curiosity to learn something of War

Bonnet's methods had quite as much to do with my acceptance of the invitation, as my sense of professional courtesy. I smoked the long pipe and spent a very pleasant half hour with the distinguished old Indian, who for the time cast aside all professional reserve and so far unbended as to tell me how many people he had raised from the dead, and of some marvelous cures he had wrought. I gave him a slight token of my esteem and regard and from that day was War Bonnet's "brother."

I wanted to see as much of Indian medicine as possible and to that end had all sick Indians report to me each morning. For the first few weeks there was nothing more serious than colds, headaches and indigestion. Then Rocky Bear, a sub-chief, broke his leg and was sent to a city hospital. He was properly cared for, but the next day demanded to be returned to his tribe and was brought back. The same night when I visited him I found the dressing had been removed and that War Bonnet was in attendance. The interpreter told me I could not stay because the medicine man was working. Rocky Bear grunted "How" and held out his hand, and War Bonnet, speaking in Sioux to the interpreter, said I was a medicine man and his brother and should remain; but, that Rocky Bear wanted Indian medicine. War Bonnet's medicine case—a buckskin bag—was on the ground beside the fire. It was filled with smaller bags containing coarse and fine powders, dried roots and leaves and some chunks of what looked like suet. There was the back of a turtle shell, a tin can of fat and the skull, with beak attached, of a red-head woodpecker.

In sign talk Rocky Bear informed me that he had had much pain in his leg and that he had not slept; that War Bonnet was going to take all the pain away and put him to sleep. The medicine man had a pan of coals by his side. Over this he warmed his hands after smearing the palms with grease, which I afterward learned was bear fat; he dipped his finger into a little bag containing a greenish powder and mixed it with the grease, then into a bag of white powder which he also mixed up. With this he rubbed the broken leg, carefully, gently, all the while chanting a weird but not unmusical song. Occasionally he would change the powders. In ten or fifteen minutes Rocky Bear said his pain was gone. In half an hour he was drowsy and before we left a short time after, he was asleep. Before leaving the tepee War Bonnet bound up the leg with a splint and thongs.

I could never get a very definite idea regarding the character of his powders other than that he made them from roots, herbs and portions of animals and birds. Twice a day he treated Rocky Bear and when the latter went back to the reservation he had a pretty good leg. There was a continued use of the splint and I must say for War Bonnet that he put that leg up in a well-approved fashion.

In explaining the treatment to me afterward, he said that he used the splint to keep the bones together, and that he took it off and rubbed the leg to let the blood get through and to keep the leg alive, adding wisely that if the splint was left on, the leg would die.

Just about this time I had a unique experience with Indian humor. In spite of his reserve the Indian is full to overflowing with wit and he uses it in a most unaffected manner. A dignified chief is quite as apt to be the victim of a joke as the tribal fool. While they respect dignity it is no bar to the perpetration of a witticism. I carried with me on my rounds a small medicine case containing tablets. One morning when I was hearing the complaints of those who were not well, there was a great deal of giggling among the squaws following a monologue by Yellow Shirt. The interpreter answered him. Yellow Shirt again spoke and there was a general laugh. I smiled in a companionable sort of way, wondering who the victim was, and asked the interpreter.

"It's nothing," he said, but his eyes twinkled and I insisted.

"It's pills," he said.

"Pills?"

"Yes. They say: 'Pills, pills, pills. Pills for headache; pills for cold; pills for fever; pills for the bowels when they move too much; pills for the bowels when they don't move at all; it's pills, pills, pills.'"

"Nothing funny in that," I said.

"No. Yellow Shirt say give Katy White Deer pills for a baby. That's the joke."

Katy White Deer, it might be remarked parenthetically, was an old maid and the language she used toward Yellow Shirt was never taught her at the mission back there on the plains.

The Indian does not want pills or tablets. He wants liquid medicine and he wants it so he can taste it and remember the taste after he has taken it. The worse it is the better he likes it.

During the mid-exposition period there appeared at the Indian Congress a coterie of women from the red-light district and it was not long before a number of the bucks had picked up the white man's burden, and were on the sick list with gonorrhea and all its complications. Those who were so fortunate as to contract the disease early in the rush received Indian medicine from War Bonnet—a tea made of the chimiwoya leaves, or mountain rush. In the west this is known as “clap weed” and the decoction as “mormon tea.” It was drunk in large quantities and arrested the discharge in remarkably short time. The supply on hand was soon used up and more was sent for. This found patients awaiting its arrival.

I do not mean by this to reflect on the morals of the Indian. He is not immoral in the general sense of the term. As long as he is single he will go a-visiting and a-courting, but seldom or never in his own tribe unless he is looking for a bride. His pasture of pleasure is far removed from that in which his own sheep are flocked. But once married his ideas of morality become rigid.

A man came to me with a painful and enlarged inguinal gland. I inquired concerning gonorrhea, and the interpreter, surprised, answered: “Of course, he hasn't had it. He has been married ten years.” So sure are they of one another in this respect that the interpreter absolutely refused to question the man concerning venereal disease.

When it became an assured fact that War Bonnet had confidence in his “white brother,” I ventured to ask questions concerning his practice and the material he used. There were some things which he could not or would not tell me of; for example, the process he used to produce sleep. He claimed to be able to keep a person asleep for a week without ill-effect and the interpreters told me they had seen such things done many times. The woodpecker skull and beak he used to mix medicines in the turtle shell. There is supposed to be some sort of special virtue in the woodpecker when it happens to be a red head, not only in medicine but in the making of charms and ornaments. The bear grease was used merely as a base for his ointments, the powders added being lizards, fish, various parts of animals and birds; pulverised leaves, roots and flowers. There was one powder, coarse and grayish white which was more highly prized than all the rest of the stuff which War Bonnet carried. This was said to be the bones of an animal “like

the elephant, only bigger, much bigger," as the interpreter put it. These bones are found deep down in the ground in the foot hills and the location is known only to the medicine men of the different tribes. There was, too, a paste which was strangely like ichthyol in odor and color.

When Baby Johnny Ghost Dog died of an inspiration pneumonia, brought on by the inhalation of grains of partially cooked rice, he was in the exposition hospital. War Bonnet had not treated him at all and took advantage of that fact to impress on the minds of the tribe the presence of an evil spirit on the grounds,—a spirit which only he could exorcise. A few days later Mary Pretty Boy, a three-year old child, was seized with convulsions. I was in the camp at the time and one of the interpreters called me. In the tepee the father sat holding the child across his knee. The mother had run away in a panic of fright when the baby was taken sick and a neighbor had gone to hunt up War Bonnet. The father refused to allow me to treat the child, saying only War Bonnet should give medicine. I said the baby must be taken to the hospital.

"No," said Pretty Boy. "The evil spirit lives there. It is death for babies to go there, for the evil spirit killed Johnny Ghost Dog. War Bonnet will make her well." His confidence in the medicine man was sublime, his faith childlike.

Outside, mingled with the crashing of the band and the crack of rifles in the sham battle could be heard the voice of Seven Rabbits, the spokesman of the tribe—a sort of town crier—calling for War Bonnet. His voice, usually a drawling monotone, now rose and fell and the words were snapped out. Then the soft patter of moccasined feet, the flap of the tepee was brushed aside and War Bonnet tumbled in,—dignified in spite of his haste,—his medicine bag in his hands. This he cast on the ground; an Indian untied it and spread the various little bags in a circle, the sacred bird skull in the center with the turtle shell. And then I witnessed the practice of real Indian medicine as it has been practised from time immemorial among the Redmen of the plains, and handed down from father to son generation after generation. As soon as he entered the tepee, War Bonnet flung himself on his knees before the child and taking its hanging head in his hands uttered a weird cry, half snarl, half grunt, and placing his lips to the child's mouth sucked from its throat mucus which he spat upon the ground. He tore off its clothing; he thumped its chest; he sucked at its throat and chest

and the back of its neck, raising great blotches of red flesh dotted full of little pin-point specks of blood. A convulsion seized the child still lying across its father's knees, and intoning a chant of most musical rhythm the medicine man dabbed powders on its breasts and abdomen and poured cold water over the child from head to foot.

"He'll kill the child," I said to the interpreter.

"If he dies War Bonnet will wake him up again," said the Indian simply. To the Indian mind everything is "him."

"Send her to the hospital," I pleaded.

"No, he will die there," was the reply, final and decisive.

Powders and ointments were rubbed on the child's body; her teeth were tightly clenched and a spoon was used to pry open the jaws. Chewing up a mouthful of what appeared to be dried leaves over which he had sprinkled one of his powders, War Bonnet blew the mass into the child's throat. Strange signs were made on the baby's chest with the bird skull dipped into a paste and then began the heating of the hands over the coals and the mixing of powders and grease, the rubbing, the chanting, the sucking at the throat, the blowing on the closed eyelids, and all the time the child lay dying across the lap of her father whose face, as expressionless as a piece of stone, showed no sign of sorrow or concern. One could not help marvel at the apparent disregard. In the end the child died and I sat on one side of the tepee with War Bonnet and witnessed the most impressive ceremony I have ever seen.

With its last fluttering breath the child's body slumped down into the hollow of its father's lap. Its mother had not returned and a half dozen squaws stood by silent and motionless, waiting for the end. As soon as it was apparent that death had entered the tepee, Pretty Boy looked up and thanked War Bonnet for what he had done. This is never overlooked by an Indian; he is appreciative and in this respect he is the superior of his civilised white brothers. After expressing his gratitude to the medicine man, Pretty Boy let his hair down and wept, hugging his dead child close to his breast and talking to it in the Sioux language, crooning and caressing. Sobs shook him and great tears splashed down on the little bronze body. Everyone of the squaws rushed out into the camp and crying out that Mary Pretty Boy was dead, rounded up their own children and sent them skurrying to their tepees for an evil spirit was about. Then they all returned to Pretty Boy's tepee and throwing their

blankets over their heads began to mourn. They howled and chanted and teetered up and down on their toes and wept in the death dance of the squaws. They kept this up for a hour or more until a lone, forlorn squaw crawled into the tepee like a whipped dog, her face sorrow drawn and tear stained; and creeping, creeping, creeping she came to the sorrow stricken Indian sitting there with his dead baby in his arms, and kissed her lost child. The squaws left one by one, followed by War Bonnet and his "white brother," and save for the sobbing cries of the mother returned to her desolate home, there was silence in the camp. I wondered how the medicine man would explain his failure to save the child and learned that he fell back on the all-powerful evil spirit, and that his reputation suffered not at all.

I had passed over as unworthy of investigation or even consideration, the stories I had heard of the miracle of raising the dead by medicine men and in fact had forgotten all about it, until one day I found myself suddenly famous among the Indians as a wonder worker fit to rank with the best of their medicine men. The squaw of Blue Horse tumbled over in a faint one afternoon and she was carried into her tepee. The Indians said she was dead. I applied restoratives and in a little while she was all right. Now, Blue Horse is a big civil chief in the Sioux Nation and his wife is of some consequence in Sioux society. So when the Indians saw her come back to life after apparent death, they gave me credit for having worked a miracle. Blue Horse himself believed it and circulated the story. This simple event explained to me the "marvelous resurrections" by medicine men.

One of the most important branches of civilised medicine is obstetrics; yet the Indians absolutely ignore labor cases. The squaws give birth to children as a matter of course. With them, it is survival of the fittest. If everything is normal and there are no complications, the child is born and the mother immediately goes on with her work. She may lie about for a few hours. If there are complications the whole matter is treated philosophically. The mother dies and with her the child in the majority of cases, and it is Indian fate. This has been the practice for years and years and it may account for the ease with which Indian women bear children.

Nature weeds out those women who cannot give birth to offspring and science has no hand in the matter, except the tribe is camped near an army post and the army surgeon happens to hear

of a difficult labor. And, so far as I have been able to learn, only the primiparas are given assistance by the women of a tribe. Army surgeons have told me that it is a common practice for pregnant squaws, when the tribe is moving, to drop back when labor pains begin, go to the nearest water, give birth to the child, wash it in the creek or spring beside which she is squatted, jump into the water herself, and follow on after the tribe with the newborn strapped on her back.

There were two labor cases in the Indian camp at the Pan-American, one a Sioux, the other a Navajo. The latter squatted over a blanket, pulling on a rope suspended from the ridge pole of the tent, a sister Navajo leaning over her from behind and making downward pressure on the distended abdomen. The labor was simple and uncomplicated and the next morning the mother cooked breakfast for the family. The Sioux woman's baby was four days old before anyone outside of the tribe knew there was a little red stranger in the camp. This child was born at 5 o'clock in the morning and the mother was out at 6 o'clock hauling wood and building a fire.

In spite of his exalted position in the tribe an Indian medicine man is only human, and in some California tribes he very often separates his patient from some choice ornament or a sum of money by the performance of sleight-of-hand in effecting a cure of a malady.

Mr. George Wharton James, with whom I talked many times concerning the practices of Indian medicine men, told me several amusing incidents which had come under his own notice in his years of association with the different tribes in the West. The Ting-ai-vash, or medicine man of the Cahuillas of Southern California, had a patient with a most troublesome cough which his herbs did not cure. He told the patient that he had a feather growing in his throat which made him cough, and he pretended to pull it from the man's mouth. Of course, it was sleight-of-hand and nothing else. So, too, was his remarkable cure of a case of rheumatism which was said to be due to the presence of a lizard in the man's belly. The Ting-ai-vash took a lizard into his mouth and sucked at the skin of the man's abdomen. Then he spat the lizard on the ground and told the man he was cured. This old fakir was a most accomplished sort of a man and nothing phased him. One other case was that of a man with a swollen abdomen. The medicine man chanted a song and danced about the patient five or ten minutes and then into the

song he put the words to this effect: "Yes, my brother, your belly is big and you are suffering; it is a rope which has been put into you by the magic of a bad Wallapai; I will cure you, my brother, for \$5 and take the rope from you and you can keep it; it is the rope, my brother, the rope." He got the \$5 and the patient got a piece of rope.

It must not be inferred from this that all Indian medicine men depend on sleight-of-hand tricks or fakes. They all more or less play upon the credulity of their patients. Even old War Bonnet, I doubt not, has squirmed out of some tight places by bringing on the evil spirits which are so dreaded by the Indians. But the real medicine man, the typical product of the plains of the West, such, for instance, as War Bonnet himself, spends years in study and preparation; and in gathering his herbs and roots and fossils he subjects himself to privation and suffering and solitude. When his medicine bag needs replenishing, the medicine man strips himself and naked goes forth into the foot hills and mountains. For seven days he neither eats nor drinks nor sleeps. Back and forth he wanders praying to the Great Spirit and searching for what he is in need of. When he returns to his tribe he is a sorry spectacle, gaunt, hollow-eyed and dirty; yet he has his herbs and roots and his bones and they are doubly efficacious because of the long fasting and the unending prayers.

Whatever we may say of Indian medicine as practised by the medicine man, it has one virtue, even if it does not always cure; it is honest. The medicine man believes in his own drugs and his greatest virtue is that he does not believe in absent treatment. He recognises that disease is a fact and not a belief; he does not confine his practice to massaging and call himself the Indian equivalent of an osteopath, and although like the christian scientist he prays over his patient he is advanced enough to give him medicine.

Indian medicine is interesting to the casual observer; it is fascinating to the favored ones who may be so fortunate as to be permitted to witness its practice. Realising this, recent events in the politics of fake medicine have caused me to wonder what sort of an enabling act would now be before the legislature of this state, if the High Priest of the Amen Corner had fallen into the hands of old War Bonnet, instead of under the beneficent leg-pulling influences of a fair disciple of the diploma mill at Kirksville, Mo.

CLINICAL REPORTS.

Removal of Ovarian Cyst, Hematoma and Fibroid.

By L. G. HANLEY, M. D.,

Gynecologist Buffalo Hospital of the Sisters of Charity.

REPORTED BY FRANCIS W. BARTON, M. D., Interne.

MISS D., age 36; has been treated for stranguary during the past year. Was obliged to urinate every three or four hours. The annoyance caused by irritation from bladder was of such severity, that she became at times hysterical, irritable and somewhat unbalanced mentally. Patient has suffered for two years with severe dysmenorrhea. Examination revealed a complete retroversion of the uterus, with a mass on either side showing evidence of some inflammatory action.

Patient was prepared for celiotomy. On opening the abdomen the following conditions were found, viz.: cyst of the right ovary the size of a small orange, hematoma of the left ovary two inches in diameter, and a subperitoneal fibroid, lying one-half inch below and posterior to the fundus of the uterus. Adhesions were broken up and specimens removed, the uterus anchored to the abdominal wall according to the method described by Dr. Hanley in the February number of the *BUFFALO MEDICAL JOURNAL*. Stitches were removed on the tenth day. Patient sat up on the seventeenth day. Has complained of no bladder symptoms since operation, and feels perfectly well.

This case was unique, owing to the presence of an ovarian cyst, hematoma and a fibroid, in the same patient, and in so far as the mental disturbance was relieved by the operation.

TREATMENT OF SEPTIC PERITONITIS CONSEQUENT UPON MISCARRIAGE AND PYOSALPINX.

— B., age 21; brought to hospital in ambulance, January 24. Three weeks prior to admission had a miscarriage—received no medical attention; period of utero-gestation was four months. Has had gonorrhea. Temperature on admission was 104°. Patient complained of severe pain in pelvic region.

Examination revealed a profuse vaginal discharge, tenderness and tympani in the pelvic region. There was a large mass in right side of pelvis, tenderness and all evidences of peritonitis. Patient was prepared for curetment. Uterine cavity was thoroughly cleansed, a dull curet being used, after which it was drained. Uterus was not tamponed.

February 3, patient was prepared for celiotomy, as symptoms did not materially improve. The bowels, adnexa and omentum were bound together by adhesions. There was a large pyosalpinx on right side. This was removed after adhesions had been

broken up. The uterus was enlarged to about twice its size and there was a great amount of oozing from the inflamed surface. Abdominal cavity was flushed with normal salt solution, the fluid left in the abdominal cavity and wound closed. Temperature dropped to normal two days after operation and remained so until the 21st day, when patient was discharged.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

Section on Pathology, March 18, 1902.

REPORTED BY IRVING P. LYON, M. D., Secretary.

THE regular monthly meeting of the section on pathology, Buffalo Academy of Medicine, was held in the Academy rooms, Public Library Building, Tuesday, March 18, at 8.30 p.m., Dr. GROVER W. WENDE, chairman, presiding.

I.—EXHIBITION OF PATHOLOGICAL SPECIMENS.

1. Dr. HERBERT U. WILLIAMS presented specimens of gastric ulcer, as follows: (a) A gross specimen of gastric ulcer, which was found associated with a severe grade of chronic gastric catarrh, secondary to chronic passive congestion. Dr. Williams called attention to gastric catarrh as a predisposing cause of gastric ulcer. (b) Microscopic section of a gastric ulcer, showing an eroded bloodvessel, with secondary thrombus formation. The thrombosis had developed too late to prevent hemorrhage and death. (c) Large gastric ulcer (gross specimen), showing an eroded artery with calcareous atheromatous degeneration, the local arterial lesion being part of a high grade arterio-sclerosis with atheroma but shown in the aorta. This process was emphasised as another cause of gastric ulcer.

Dr. ALLEN A. JONES remarked that Dr. Williams's specimens confirmed his personal belief that gastric ulcer had no single cause, but was due in different cases to different causes; in fact, to a great variety of causes.

2. Dr. EUGENE A. SMITH showed a specimen of thrombosis of the abdominal aorta, the thrombus extending from the bifurcation of the aorta upward to the origin of the inferior mesenteric artery. Atheroma of the abdominal aorta was not noted, though arterio-sclerosis of the ascending aorta and an old

fibroid mitral stenosis were found. During life the patient had shown marked dysenteric symptoms and signs of the obliteration of the arterial circulation in the legs. Pain in the feet, extending upward into the thighs, was a prominent symptom. There had been no abdominal pain or tympanites. Vomiting and diarrhea, fever, rapid pulse, and the like, ending in collapse and death, were the chief clinical features, with the signs of obliteration of the arterial circulation in the legs. The diagnosis *intra-vitam* had been correctly made, as revealed by autopsy. Dr. Smith raised the question, whether the thrombosis was to be regarded as infective and secondary to the dysentery, or whether the dysentery was secondary to the thrombosis of the aorta, which involved the origin by the inferior mesenteric artery? He inclined to the latter view.

(3) Dr. H. R. GAYLORD presented microscopic sections of four cases of carcinoma in hogs. These four cases were all found during a period of two months in one of the large abattoirs in Buffalo. Carcinoma in swine, therefore, cannot be the rare disease it has been supposed to be by previous writers.

II.—REPORTS OF CASES.

1. *Two Cases of Tertian Malarial Fever, Originating in West Seneca, N. Y.*, by Mr. Eugene Horton (student, Medical, University of Buffalo.) Mr. Horton exhibited blood films showing tertian malarial parasites from two cases, mother and a five-year old child. These cases were important in establishing the fact that malaria may and did have a local origin in this region of the country, almost within the limits of the City of Buffalo. The mother had not been away from the region of Buffalo for many years, and the child, according to the mother's positive assertion, had never been on a railway train or left the immediate vicinity of its home. These two cases were examined by Mr. Horton about a week ago—March, 1902—and by blood examination proved to be malaria of the tertian type. Symptoms of the disease had been manifested in the child for about three weeks; in the mother for a shorter period.

Upon careful investigation and inquiry, however, the following history was obtained:

The family moved into its present residence August 7, 1901, from a house about one-half mile distant. In this former residence, during June and July, 1901, father, mother and child all had typical symptoms of malarial fever and the affection was diagnosticated and treated by the physician as malaria. The

cases of the mother and child had been mild and yielded to quinine. The father's case had been resistant and continued for over two months, until they moved away into a new residence.

It was, therefore, apparent that the attacks of malaria occurring in March of the present year in the mother and child represented simply recrudescences from the previous infection of last summer, which had in the interval been quiescent but not eradicated.

Whence the infection of last summer? For we no longer believe in a miasmatic origin of malaria, but know that we must have two factors present in any locality to permit the local development of malaria—namely, mosquitoes of the genus *ánopheles*, and previous cases of malaria from which the anopheles may become infected, and capable of infecting healthy people with malaria. We must, therefore, presuppose the existence of both these factors in the immediate locality of the residence of these cases.

In regard to the presence of mosquitoes, we have the statement of the mother that their former residence was swarming with these insects, and that “we were almost eaten alive by them last summer.” Furthermore, there was a creek within a hundred yards of the house, a small pond in the backyard, and a large pool of stagnant foul water beneath the house, formed by the discharge of house slops under the house. This pool under the house was said to be alive with mosquitoes. It is not far to arrive at the conclusion that this pool was a breeding place for anopheles. Moreover, we know that anopheles have, though only in a few isolated instances, been found in the neighborhood of Buffalo.

Presuming, then, that the anopheles were present, can we show any previous case of malaria from which they could have become infected? That malaria is not endemic here has been abundantly shown. We must therefore assume some exceptional explanation of the possibility of the infection by the mosquitoes. This is forthcoming in the fact that a large gang of Italian laborers, employed by the Depew water works, was present in the immediate vicinity of the house last spring during the month of May for about three weeks, engaged in laying pipes within a few rods of the house. One or two of these Italians remained on guard during the night.

We have, then, a probable explanation of this local epidemic of malaria, as follows: “During the month of May, 1901, a

gang of Italian laborers was employed close to the house of our patients. Malaria probably existed among these Italians, who were more than likely freshly arrived from Italy. The mosquitoes, *anopheles*, breeding in the foul collection of waters under the house, fed upon the malarial blood of these Italians, became infected with the parasites, and in turn infected the inhabitants of this house with malaria. Thus is explained in a rational and plausible way the occurrence of the first cases of malaria of recent years, positively shown to have had a strictly local origin.

DISCUSSION.

Dr. DE LANCEY ROCHESTER complimented Mr. Horton on his interesting and important contribution, being the first proved case of malaria of local origin known in recent years. Dr. Osler, however, was authority for the statement that in former times malaria in endemic form was no stranger to the lower lake region. Hence, formerly at least the *anopheles* must have thrived here, and doubtless can now. Malaria may become endemic again at any time if it once gets a start and under headway.

Dr. HERBERT U. WILLIAMS said that as the Italians had found it possible to protect themselves against malaria by mosquito-netting, oil on the breeding pools, and the like, so also it must be possible for us to continue to keep ourselves and locality free from malaria, by stamping out such local epidemics as this one. The board of health might properly be interested in such cases.

Dr. IRVING P. LYON stated that he had failed to find a single specimen of *anopheles* among 374 mosquitoes collected during the summer of 1900, in and about Buffalo, within a radius of about twenty miles. A local entomologist, Mr. M. F. Adams, during the same summer collected and examined between 300 and 400 mosquitoes from Buffalo and its vicinity and found three specimens of *anopheles* among these. Thus out of about 800 mosquitoes, 3 *anopheles* were found.

During the summer of 1901, Dr. Lyon examined several thousand mosquitoes, caught or bred from the larvæ obtained in the City of Buffalo, on Squaw Island, and from the neighboring village of Williamsville. Three specimens only of *anopheles* were found among the several thousand examined, the three *anopheles* all coming from the outskirts of Williamsville. Thus up to the present, we have records of only six identified speci-

mens of anopheles found in or near Buffalo. But these six specimens are sufficient to prove the presence in this climate of the malaria-bearing mosquito. It is likely that more extensive investigation will show that the anopheles exists about here more commonly than supposed, perhaps here and there in small foci.

Dr. Lyon had seen the cases of malaria reported by Mr. Horton and had examined the blood of both, and confirmed in full the statements made by Mr. Horton. The explanation of the local epidemic seemed to be the correct one and left very little to be desired for completeness. A similar local epidemic in an inland town in Massachusetts had been lately traced to the same origin, *i.e.*, a gang of Italian laborers.

The proof of such a case or two of malaria must not be made to do service hereafter for the indiscriminate diagnosis of malaria. These cases are in every way exceptional, and are explained by exceptional circumstances. The only proper diagnosis of malaria is by blood examination.

(2) *An Unusual Case of Mediastinal Tumor Associated with Obstruction of the Thoracic Duct and Accumulation of Chyme in the Pleural Cavity*, by Dr. H. G. MATZINGER. Such a case was described clinically and specimens of the milk-white fluid aspirated from the left pleural cavity were exhibited. Large quantities of this chylous fluid were aspirated on several occasions. From the right pleural cavity a clear, yellow fluid was aspirated in large amount, in nowise resembling the chylous fluid obtained from the left chest. Physical examination showed only a mass of soft glands arising from under the left clavicle at its middle portion, and a gland in the right axilla about the size of a hickory nut. These glands were supposed to be sarcomatous or lymph-adenomatous. The only explanation of the chylous fluid in the left chest was an obstruction of the thoracic duct by the new growth. The patient was without temperature, and had lost about sixty pounds in weight since he first noticed a tumor above the left clavicle about ten months ago. Urinalysis was negative. The blood examination made in the day time showed 10,000 leucocytes and no *filariæ sanguinis hominis*. No evidence of tuberculosis was discovered, although there was a history of consumption in two cousins. Careful chemical analyses of the fluid made by Dr. Clowes were presented, showing a close similarity with the chemical analyses of chyle.

Dr. Williams said that Dr. Matzinger had overlooked one possible explanation of the condition—namely, a perforation of the esophagus by an epithelioma. This was a mere suggestion and not offered as a diagnosis.

Dr. ALLEN A. JONES called attention to the extreme rarity of the case and the difficulty of explaining the chylous fluid in the left chest and the clear fluid in the right chest. There must be a perforation of the thoracic duct.

Dr. Lyon remarked that the absence of temperature made the case a favorable one for testing with tuberculin for tuberculosis. With reference to the possibility of filariasis, Calvert's recent studies on two cases have shown a marked eosinophilia in the blood. The blood should be carefully examined in this case, before a diagnosis is reached.

(3) *A Case of Very Early Syphilis of the Brain*, by Dr. J. HENRY DOWD. The following interesting case shows how early the brain may become involved during the secondary period of that disease:

X.Z., aged 28, reported for treatment on September 26, with several ulcerations on glands of penis, also discharge from the urethra, both of which appeared yesterday (25th), and positively stated that the last coitus occurred on September 1. Microscopical examination showed the discharge to be gonorrheal in nature. (Note incubation period of 25 days.) The ulcerations were cauterised and an opinion given of possible mixed infection. All the ulcerations healed except one which became angry, and on the 4th of December, 67 days after its appearance, macular eruption appeared on the abdomen, forehead and chin, but very slight, there not being over 50 spots all told.

Treatment for syphilis was instituted at once, per mouth. January 6, complains of headache, seeming all over the head, noticeable most at night; medicine increased to toleration. January 20, headache getting worse; unable to sleep. Pain mostly over right side; photophobia; cigar dropped from hand yesterday; feeling in head as though there was a something there that moved backward and forward; medication commenced by hypodermic method. February 5, on account of tenderness of gums, injections reduced in strength for past few days. Now, aphasia lasted half a day; dragging of right foot; very constipated and vomited. February 20, on account of cramps, and the like, medicine reduced in strength, head was now as bad as ever—no let up day or night; face twitches and pain is extending to the back of the neck. Priest called to see the patient, as he was thought to be dying. March 6, slight relapse on account of having to decrease medicine. Now increased and steady

improvement follows. At no time did temperature exceed 99° , he has lost 40 lbs. in weight and in 40 days has taken $9\frac{1}{2}$ grains of bichloride hypodermatically.

This case cannot be considered tertiary, as at no time were symptoms present indicating gumma, or thrombotic involvement of the bloodvessels.

Dr. A. L. BENEDICT read a paper entitled,

CHRONIC BASIS OF DIETETICS.

Dr. Benedict discussed briefly the subject of the chemical demands of the body and the rational supply of such demands by means of the different classes of foodstuffs.

The discussion was shared by Drs. A. A. Jones, Lyon and Clowes.

Members present, 30; adjournment, 10.45 p.m.

Buffalo Ophthalmological Club.

A NEW ophthalmological club in Buffalo was organised March 14, 1902, at the office of Dr. Benjamin H. Grove, 334 Pearl Street, by the following gentlemen: Drs. Alvin A. Hubbell, Benj. H. Grove, Lucien Howe, Arthur G. Bennett, F. Park Lewis, Lorenzo Burrows, Jr., Richard H. Satterlee, John J. Finerty, John C. Clemesha, Albert E. Hubbard, John D. Flagg, Elmer G. Starr, Henry Y. Grant and Benjamin F. Rogers.

The name of the organisation is the Buffalo Ophthalmological Club.

At this initial meeting by-laws were formulated and officers elected. The officers are an executive committee, consisting of Drs. Benj. H. Grove and Lucien Howe, and a secretary-treasurer, Dr. John D. Flagg.

The meetings, which are held the second Thursday evening of each month from September to May inclusive, are both professional and social.

The first regular monthly meeting of the club was held Monday evening, April 14, 1902, at the home of Dr. F. Park Lewis, 454 Franklin Street.

At this meeting, Dr. Grove presented a patient with a small piece of iron in the vitreous of the left eye. It had been in the eye five months and was encysted in what appeared to be lens substance. As the eye gave the man no particular trouble he refused to have it removed.

Dr. John J. Finerty presented a patient with a choroidal exudate near the macula in the right eye. The patient could give no history of injury except that about two months ago a drop of oil flew in the eye.

Dr. Arthur G. Bennett exhibited two specimens, an ossified choroid and a calcified lens, both removed from the same eye.

Dr. A. A. Hubbell made some appropriate remarks in introducing the subject, Astigmatism and its correction.

The other members present took part in the discussion, after which refreshments were served and a social hour thoroughly enjoyed.

The club then adjourned to meet the second Thursday in May at the home of Dr. Lorenzo Burrows, Jr.

PROGRESS IN MEDICAL SCIENCE.

Genito-Urinary and Syphilitic Diseases.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

THE UNRECOGNISED CHANCRE.

W. S. GOTTHIEL (*International Medical Magazine*, October, 1901,) calls attention to the frequent insignificance and fugacity of the initial syphilitic lesion which often leads to its nonrecognition.

Points of diagnosis: (1) The original lesion at its beginning is a round cell accumulation in the skin or submucous tissue. Ulceration usually follows: appreciable induration invariably results; (2) the tumor is indolent, painful and refractory to treatment; (3) there is a characteristic "stony" induration of the nearest lymph glands, which differs from the general adenopathy of the systemic infection; (4) chancre runs its course in a few weeks, while tuberculosis takes months and carcinoma even years for development; the signs of this disease, osteocopic pain, cephalalgia, synovitis, general lymphadenitis, exanthema, and the like, must be carefully searched for. They may be overlooked in a careless examination.

THE CURABILITY OF SYPHILIS.

GOTTHIEL, WILLIAM S. (*International Medical Magazine*, October, 1901,) states that everyday experience shows that the great

majority of cases are cured. He concludes: (1) syphilis is a curable disease and under restrictions a self-limited one; (2) the chances of a cure, after a certain time, are so great it may be claimed that it has been effected; (3) a patient who has been properly treated throughout the active stages of this disease, and who presents no manifestations of its persistence after the lapse of several years may be pronounced cured.

ABSTRACT.

Valyl.

(VALERIANIC ACID DIETHYLAMID.)

The many uses to which valerian and its preparations can be put have been offset by the uncertainty of its action, together with the disagreeable taste, odor and the eructations, thus limiting its use.

In the treatment of hysteria and a train of nervous disorders it has been found extremely valuable where other remedies have failed. The necessity for a uniform product in a concentrated form, which could be given without gastric and other disturbances to the patient, has been conceded, but until now, not accomplished.

In valyl, or chemically, the diethylamid of valerianic acid, this result has been obtained. Experience with valyl at the medical clinic of the University of Breslau, (Geheimrath Kast) showed that it had all the virtues of valerian and valerianic acid in the treatment of hysteria and other nervous disorders, as well as of the vasomotor system; while Prof. Pfannenstiel in the medical ward of the central prison (privat docent Bonnhoffer) Breslau, as well as in private practice, found it useful in: (1) cases of hysteria and functional heart troubles; (2) cases of traumatic neuroses; (3) cases of migraine, hemicrania, neuralgia and ischuria; (4) in cases of troublesome menstruation, where abdominal pains and headaches were relieved.

Valyl is offered in gelatin capsules containing each 0.125 gm. (2 grs.) with an equal amount of olive oil, and are given one or two, two or three times a day. No unpleasant effects were noticed, while the psychic effect was apparent as well as was the antispasmodic.—*Therapeutic Progress.*

CORRESPONDENCE.

Pathologic Exhibit of the American Medical Association.

Editor Buffalo Medical Journal :

Sir.—The committee on pathologic exhibit for the American Medical Association is anxious to secure materials for the coming session at Saratoga, June 10-13, 1902.

This exhibit was accorded much praise and comment during the sessions at Atlantic City and St. Paul respectively, where were collected valuable exhibits from all parts of the country. The materials included not only pathologic specimens but the allied fields, bacteriology, hematology, physiology and biology, were well represented. It would also be desirable to secure exhibits of new apparatus, charts, and the like, used by teachers of pathology and physiology in medical colleges.

This exhibit has already become a permanent feature of the annual sessions of the American Medical Association, hence the committee is desirous of securing its list of exhibits as early as possible and to this end asks those having desirable materials to communicate with any member of the committee.

To contribute to the value of the work, it is suggested that as far as possible each contributor select materials illustrative of one classification and by such specialisation enhance the usefulness of the display.

Those lending their materials may feel assured that good care will be given their exhibits while in the hands of the committee and due credit will be given in the published reports.

F. M. JEFFRIES,
214 E. 34th St., New York City.

W. A. EVANS,
103 State St., Suite 1403, Chicago, Ill.

ROGER G. PERKINS,
West. Res. Med. School, Cleveland, O.

Committee on Pathologic Exhibit, American Medical
Association.

NEW YORK, March 26, 1902.

An Opening for Internes in the State Hospitals.

Editor Buffalo Medical Journal :

Sir.—Students about to graduate who are unable to secure positions in general hospitals, or young physicians whose terms are about to expire in general hospitals and who wish to enlarge their experience, are now offered an opportunity to enter the New York State Hospitals as internes or clinical assistants.

These positions provide lodging and board. Appointments are made for a year. Some twenty-eight positions will be opened in the fourteen state hospitals, situated in the following places in New York state: Utica, Buffalo, Gowanda (homeopathic), Binghamton, Kings Park, L.I.; Flatbush, Brooklyn; Central Islip, L.I.; Ward's Island, New York City (two hospitals), Rochester, Ogdensburg, Poughkeepsie, Wilbard, Middleton (homeopathic).

Although these are hospitals for the insane, yet they are so large that opportunities for experience in general medicine are abundant. Each hospital is equipped with clinico-pathological laboratory and apparatus, operating rooms, trained nurses, hydrotherapeutic and electrical devices and good medical libraries. The field for study in general medicine is excellent, and surgical operations of all kinds are frequently performed, either by resident or consulting surgeons. It is thought that many students who wish hospital experience and are unable to obtain it because of the relatively few places available in general hospitals, may be glad to learn that positions of this kind have been thrown open to them. It is believed that young physicians wishing hospital experience will profit by a year's residence in one of these hospitals, and such as desire to continue in special work would be eligible for appointments, subsequently, to salaried positions in the same service.

No examinations will be necessary, but application must be made in person with good references, directly to the medical superintendent of any of the above named hospitals or to the undersigned,

FREDERICK PETERSON, M. D.,
President of the Commission in Lunacy.

4 West 50th Street, New York, April 1, 1902.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

All communications, whether of a literary or business nature, books for review and exchanges should be addressed to the editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

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No. 10.

"The Coming Unification of the Medical Profession."

AT THE opening of the Physicians' Club at Dayton, O., which occurred March 20, 1902, the dedicatory address was delivered by Professor Charles A. L. Reed, of Cincinnati, the distinguished ex-president of the American Medical Association. Dr. Reed chose for the subject of his remarks The Coming Unification of the Medical Profession,—a subject that is just now paramount in the minds of the leaders of professional thought in the state of New York.

In the March edition of this journal, announcement was made of the appointment of committees of conference representing each of the two state medical societies, the object of which was stated to be to devise a plan for the union of the two bodies, and thus to put an end to the schism which has existed in the Empire state for nearly twenty years. These committees have had several meetings already, and it is believed substantial progress has been made toward the much desired end in view; at all events, there is no reason why such should not be the case, for the way thereunto has already been smoothly paved by the action of the American Medical Association during its meeting at St. Paul last year.

It will be remembered that at that time, under the inspiration of the president, Dr. Reed, a complete reorganisation was secured and a new constitution and by-laws adopted, which completely swept away all the elements in the old organisation that had caused differences of opinion between the National body and the medical society of the state of New York. The association announces in its second article that its object "shall

be to federate into one compact organisation the medical profession of the United States . . . and of representing to the world the practical accomplishments of scientific medicine." This would seem to be broad enough and the door to be open wide enough to permit the entrance of every legally qualified physician in the United States.

In the by-laws as then adopted, Chapter XV. says: " . . . and provided, further, that nothing in these by-laws shall be construed to repeal the rules of the Association governing the relation of members to each other and to the Association." This is the only section that possibly might be construed to refer to the code. It is a principle of law that only such exemptions or exceptions as are specifically named in a statute remain, while all others are repealed. Therefore, it will readily be seen that whatever of the code is retained, is simply recognised as "rules" and has not the force of law. The rules embraced in the code of ethics which are repealed by the foregoing proviso are those pertaining to the relations of members of the association. The rules that were not thus repealed now, alone, constitute the code of ethics, if it be entitled to such name, and the publication by any association or individual of any document purporting to be the code of ethics of the American Medical Association, the provisions of which are not in accordance with the foregoing facts, would be in derogation of the rights of individual members of the American Medical Association, and would subject that incorporated body to proceedings in injunction before any court of competent jurisdiction.

This legislation, or action, of the American Medical Association removes the last ethical barrier between it and the Medical Society of the State of New York. The code controversy, therefore, is at an end and should be buried alongside of the ancient and respectable document which gave rise to all the difficulty, and which never again will be printed except as a historic curio.

It will be observed, therefore, that the American Medical Association has done all that it can do,—indeed, all that it could be expected to do,—to bring together the contending factions that were rent in twain by its own action in 1882, in rejecting the delegates from New York, because the society they represented had adopted a modified code of ethics. Nothing would seem to remain to reëstablish harmony but to arrange "a few purely trivial details," which relate rather to the commercial than to the professional side of the question.

In his Dayton address Dr. Reed makes many observations that are very pertinent to this general subject, from which we quote the following paragraphs taken from the *New York Medical Journal* of April 19, 1902. After reviewing the purposes of the Physicians' Club which he was addressing, and which were stated to be to gather within its folds the legally qualified physicians of Dayton, without reference to "schools" or "sects" to discuss such things as are of importance to the public welfare, and of interest to themselves professionally, politically, and commercially, he proceeded to say:

EXCERPTS FROM DR. REED'S ADDRESS.

I congratulate you, in the first place, upon having effected this organisation upon the broad basis of good citizenship. You have recognised the primacy of the law, not only by conforming to its provisions in your individual relations to the State, but tonight you have gone further, by bowing with loyalty to that sentiment that makes law possible, this sentiment, more important in a democracy than the law itself,—the sentiment that, while underlying the law, rises above it,—must be recognised in all walks of life, in all ranks of society, as a chief safeguard of the Republic. That profession, craft, or calling which, in its organised capacity, declines to recognise that which the law recognises lends itself to the propagation of a sentiment that is inimical to law itself.

The state, by authority of the governed, has authority, not only to protect society against imposition, but to secure to it the best developments in any department of science. In the exercise of this authority the various states of the Union with unanimity have declared that one who shall assume responsibility, professionally, for the treatment, care, and conduct of the sick and injured shall have a certain knowledge of the fundamental branches of medicine, which includes anatomy, physiology, chemistry, hygiene, obstetrics and surgery; and the states have, with almost equal unanimity assumed, in effect, that physicians who are competently educated in these departments may be left either to themselves or to the supervision of their sectarian associates in matters of therapeutics. This has been and is the wise middle ground, the fruits of which are obvious all over the country—are obvious here tonight—where, with a complete understanding upon the fundamental branches, and with an abandonment to the spirit of truth, an open, frank, free, and understandable discussion may be had upon all correlated subjects of science. But the essential, the paramount question, is that of the fundamental studies without which, as a basis, no system of medicine, whatever its sectarian title, can lay the slightest claim to being scientific.

As a matter of fact, the regime that we are inaugurating so auspiciously in Ohio tonight, and the principles of organisation such as you have here adopted, have become rather extensively established in the American medical profession. It began as long ago as 1876, when the physicians of California assembled without reference to denominational predilections, and secured the adoption of the first effective law for the regulation of the practice of medicine anywhere in the United States. It is true that those conferences, called for temporary purposes, did not assume the form of permanent organisation for social and scientific purposes, such as you have here established, but the principle of reciprocal recognition and coöperation was then and there promulgated. The same steps were taken during the succeeding few years in Illinois, Alabama, and Colorado. In each instance the movements resulted in the establishment of state licensing boards, composed of representatives of the different "schools" or "sects," who consulted, yes, actually consulted, not upon the trivial question of a dose of medicine, but upon the vastly more vital question of the qualifications of those who were to practise the healing art. Thus it happened that, under the influence of the state, instigated by the profession itself, the lines of demarcation between the contending denominations of physicians were subjected to the gradual but sure process of effacement. From these beginnings the process has spread all over the country, and it has been accomplished, with but a single exception, with that smoothness characteristic of evolutionary growth.

The only exception was that of the State of New York, in which the physicians of the dominant and controlling school of practice, as a result of doing precisely what had been done without protest in the other states,—as a penalty for doing precisely what you are doing here tonight,—was subjected to the penalty of excommunication by its national organisation. This action has stood for twenty years as the one conspicuous stain upon the escutcheon of the American medical profession. I am happy to state that, under the broader knowledge of today, this wrong is about to be remedied. I feel that I am violating no confidence when I state here tonight that committees, representing the affiliated body of the national organisation on the one hand and the excommunicated state organisation on the other, each actuated by the *Zeitgeist* of the twentieth century, are arranging a few purely trivial details with the object of reestablishing the complete unity of the national profession. I may go a step further and say to you, in all confidence, that the great sentiment of the American Medical Association touching this unfortunate incident is such that it awaits with impatience the successful completion of these negotiations. You may, therefore, look forward with confidence to the meeting to be held in Saratoga in June as the date which shall mark the close of that period in our national profession when a reputable physician shall be

denied recognition and fellowship because he exercises the most fundamental prerogatives of individual liberty.

It is, indeed, the dawn of a better epoch, when members of a learned profession, and a profession with growing liberality, maintain an open tribunal before which may be represented any scientific truth. It bespeaks an era when the professional mind, untrammelled by dictum or authority, shall assume a judicial poise. It is an era in which the chief point of pride shall be, not to maintain a preconception for the sake of personal achievement, but gladly to yield it in the light of demonstrated truth. With such a spirit dominating our profession, and with the unwritten code of the gentleman controlling the personal conduct and the professional relations of its members, we may feel that we are in the way of fulfilling, in the highest degree, our functions as the conservators of the public welfare. In conclusion and just as the sun is breaking in richest effulgence upon this new day, I can only congratulate you for having thus earnestly and auspiciously demonstrated what is meant by that increasing purpose that runs through the ages and by those thoughts of men that broaden with the procession of the suns.

The action of the Dayton Physicians' Club is on similar lines taken by the Buffalo Ophthalmological Club recently organised in this city, the details of which will be found on another page in this issue. The only difference is that, in Dayton, a declaration was made in the preliminary notice sent out; whereas, at Buffalo, homeopathists, state association men and state society men, and physicians that did not belong to any of these organisations, united in forming a club with the object of discussing scientific medicine. The first meeting for this purpose was held at the home of Dr. F. Park Lewis, a distinguished representative of the homeopathic medical profession, and a scientific contribution from whom will be found in another part of this magazine. Among others who attended this meeting and participated in its proceedings was Dr. A. A. Hubbell, president of the New York State Medical Association for the current year. Under these conditions, which are not singular but are occurring here and there all over the country, would it not seem that the time has arrived when every legally qualified physician in good standing with his professional confrères might accept the invitation of, and be admitted into that distinguished representative body of the medical profession,—the American Medical Association?

The Office of Coroner Abolished.

FOLLOWING the plan in vogue in Massachusetts for many years the last legislature, at the instance of Senator George A. Davis, of this county, passed a law discontinuing the time-honored office of coroner in the County of Erie. This is in accordance with the spirit of the age and coincides with the action taken in the Medical Society of the State of New York some years ago, when it endorsed and urged a bill to abolish the office of coroner throughout the state.

The coroner is one of the oldest officers recognised by law; he was an officer of the crown and commanded the highest respect as a public functionary, representing, as he did, the authority of the king, wherever he went in discharge of his duties. The traditions of "crowners' quest law" have furnished theme for comment in classic literature and everybody is familiar with the clownish grave-diggers exposition of it in Hamlet. In this county the office has existed from the first, it being an heirloom, so to speak, from colonial times, handed down in turn from the mother country.

The change, therefore, which is taking place is a radical one, but it is believed by those most familiar with the new plan that it is much better than the old one, and that the ends of justice will be served more adequately by it.

The new law substitutes the office of medical examiner for that of coroner,—an administrative office for a semi-judicial one. The medical examiner will conduct all inquiries relating to the cause of sudden death, including both medical and legal aspects of the case, and report his findings to the District Attorney, filing with him papers and evidence in criminal cases. He is given an assistant who is empowered to act in his absence, disability, or in his stead, if for any reason he is inaccessible. A secretary also is provided, who has immediate charge of the office and its records.

Dr. Earl G. Danser, who was elected coroner last fall by a very large majority, has been appointed to the office of medical examiner, and will inaugurate the new service, with the best wishes of his professional colleagues, who will assuredly give him their unstinted support to make the service dignified, scientific, and creditable in every way. Dr. Danser's selection by the board of supervisors, was the logical solution of the difficulties growing out of the change. He was elected coroner by

many thousand votes, his office was abolished during his term, and he is capable and honest. That was all there was of it and the board took this very sensible view. Dr. J. D. Howland, who was elected assistant medical examiner, we have every reason to believe will prove an excellent officer. The JOURNAL extends its best wishes to the new officers, and its best thanks to Senator Davis for his successful efforts in securing the passage of the law that has in it so much of promise for improvement.

A Question of Damages.

THERE has been decided in New York City a case which has a peculiar interest in Buffalo inasmuch as it will affect the question of the payment of damages by two Buffalo hospitals.

Something over two years ago Helen G. Ward was taken to St. Vincents' Hospital for operation. At the conclusion of surgical procedures she was placed in bed and a nurse in charge of the case put hot water bags about her. She suffered burns more or less severe from these hot water bags. When she left the hospital she brought suit for damages against the hospital and was by direction of the court non-suited. An appeal resulted in a new trial being ordered in which case the jury disagreed. A third trial was secured and the jury gave Miss Ward a verdict of \$10,000. The hospital's attorneys prepared papers in appeal and carried up the case. The Appellate Division set aside the \$10,000 verdict and ordered a new trial on errors. The case was tried before Justice Beach, in New York City, and resulted in an increased verdict of \$18,000 for Miss Ward.

The hospital authorities will now probably pay the verdict for, according to the opinions of Buffalo lawyers who have been watching the progress of this remarkably well-fought case, there is nothing on which to base another appeal, the last case having been tried with a rigid observance of the rules of evidence, and great care having been exercised by the trial judge with a view to preventing either side from taking advantage of any errors of judgment. The main contention of the hospital was to the effect that all necessary care was exercised in the treatment of the patient; that the burns were unavoidable. The plaintiff set up that the nurse in charge of her case after the operation was an undergraduate and therefore not wholly quali-

fied to act. A novel proposition raised by the hospital's attorneys was that the placing of a hot water bag did not require any special degree of qualification, hence the question of inexperience was not to be raised. The jury appears to have held, however, that the nurse was an agent of the hospital and that the latter was therefore liable for her acts.

There are two similar cases in Buffalo which will now either be brought to trial or settled on the strength of this verdict. In each case patients were burned more or less severely by the application of hot water bottles placed by undergraduate nurses. In one case it is stated that considerable deformity has resulted.

CHRISTIAN science has had another seance with the coroner in Buffalo. Fortunately for the highly respected society leader who in this case was the healer, the patient's death was due to carcinoma of the stomach for which the healer gave treatments, absent and contact, without, however, having an effect on the progressive cancer, and the patient died in great agony. The family reported the case to the coroner's office and a post-mortem revealed the cause of death. It also showed that the patient's life might have been prolonged for a considerable period had she not been blinded by the glitter of a false faith and the unctious and christian-like promises of a society woman, who has forsaken the delights of the pink tea for the more lucrative life of bewildering the really sick with the false doctrines of mind and matter as applied to the treatment of human ills.

PERSONAL.

DR. NELSON H. HENRY, adjutant-general of the New York National Guard, visited Buffalo recently at which time he made an inspection of the 65th regiment, which is under command of Brevet Brigadier-general S. M. Welch. After the review, General Henry and several other officers of the guard were entertained by General Welch at the Saturn Club.

DR. L. S. McMURTRY, of Louisville, read a paper before the Buffalo Academy of Medicine, section on obstetrics and gynecology, Tuesday evening, April 23, 1902, the title of which was The prophylaxis of uterine cancer, clinically considered. The

subject was admirably presented and the meeting was highly enjoyed by a large gathering of the Fellows.

DR. CHARLES G. STOCKTON, of Buffalo, who went to Europe in February, and with Mrs. Stockton took the Mediterranean tour, has returned and resumed his professional work.

DR. EDWARD J. MEYER, of Buffalo, who has been in Florida for several weeks has recovered from his illness, and has returned and resumed his practice.

DR. A. E. PERSONS has returned to Buffalo to resume the practice of his profession, and has established his offices at 19 West Tupper Street.

DR. ROSWELL PARK, of Buffalo, will deliver the doctorate address at the commencement of Yale Medical College, June 24, 1902.

DR. G. F. MILLS, of the Manhattan State Hospital, New York, has been transferred to the staff of the Buffalo State Hospital.

DR. NELSON G. RUSSELL, of Buffalo, has removed from 191 Allen Street to 448 Franklin Street.

DR. C. G. LEO-WOLF, of Niagara Falls, has been appointed health officer of the cataract city.

DR. JOHN H. PRYOR, of Buffalo, has removed from 56 Allen Street to 475 Franklin Street.

DR. JOHN T. HARRIS, of Tonawanda, has been appointed health physician of that city.

OBITUARY NOTES.

DR. JOHN L. EDDY, of Olean, N. Y., died at his home in that city of apoplexy, April 5, 1892, aged 73. He was a graduate of Castleton, Vt., Medical College, in 1854, and was one of the most prominent physicians in his region. He was a surgeon of

considerable eminence and was attached to the medical staff of the Erie Railway. He had been also a pension examiner for many years. His son, a young physician of promise, died a few years ago.

DR. MOSES T. BABCOCK, of Hammondsport, N. Y., where he had practised his profession for about 50 years, died suddenly at his home in that village, March 31, 1902. He served as assistant-surgeon of the 141st regiment, N.Y. Infantry, during the civil war and was greatly respected in the community where he lived so long.

SOCIETY MEETINGS.

THE American Medical Association will hold its fifty-third annual meeting at Saratoga Springs, N. Y., June 10-13, 1902, under the presidency of Dr. John A. Wyeth, of New York. The headquarters of the association will be at the United States hotel.

THE American Congress of Tuberculosis will hold its next annual session at New York, May 14-16, 1902, under the presidency of Dr. Henry D. Holton, of Brattleboro, Vt. Dr. John H. Pryor, of Buffalo, is one of the vice-presidents. Full details of the arrangements will appear in the *Medico-Legal Journal*.

THE Mississippi Valley Medical Association will hold its twenty-eight annual meeting at Kansas City, October 15-17, 1902, under the presidency of Dr. S. P. Collings, of Hot Springs, Ark. Titles of papers should be sent at an early date to Dr. H. E. Tuley, 111 Kentucky Street, Louisville.

THE American Electro-therapeutic Association will hold its twelfth annual meeting, at the Kaaterskill, Catskill Mountains, N. Y., on Tuesday, Wednesday and Thursday, September 2, 3, and 4, 1902. The officers are: President, Fred H. Morse, Melrose, Mass.; secretary, George E. Bill, Harrisburg, Pa.; treasurer, R. J. Nunn, Savannah, Ga.

THE Medical Society of the Missouri Valley held its semi-annual meeting, at Lincoln, on March 20, 1902, Dr. Richard C. Moore, of Omaha, president, in the chair. Three sessions were

held, and sixteen interesting papers read. The *Medical Herald* was again made official journal of the society. The next annual meeting will be held in Sioux City, Iowa, September 18, 1902.

THE Buffalo Academy of Medicine held meetings during the month of April, 1902, as follows:

Section on Surgery.—Tuesday evening, April 1. Program: Blood pressure observations in surgical cases, Harvey Cushing, Baltimore, Md.; Prostatectomy, with report of case, H. E. Hayd; A new instrument for the treatment of diseases of the prostate, J. H. Dowd.

Section on Medicine.—Tuesday evening, April 8. Program: Cerebral syphilis, F. S. Crego; Report of a case of tubercular disease of the mediastinum, F. W. McGuire.

Section on Pathology.—Tuesday evening, April 15. Program: The limitations of laboratory methods of diagnosis, Charles F. Martin, adjunct professor of medicine, McGill University, Montreal.

Section on Ophthalmology, Otology, Laryngology and Rhinology.—Monday evening, April 21. Program: A report of four acute cases of middle-ear disease with mastoid complications, Max Keiser.

Section on Obstetrics.—Tuesday evening, April 22. Program: The prophylaxis of uterine cancer, clinically considered, Lewis S. McMurtry, Louisville, Ky.

Section on Surgery.—Monday evening, April 28. Program: Pruritus ani, Geo. L. Brown; The treatment of rotary lateral curvature of the spine, Prescott LeBreton; The treatment of chronic prostatitis by the hot water method, J. H. Dowd.

THE Missouri State Medical Association will hold its forty-fifth annual meeting at St. Joseph, May 20-22, 1902, under the presidency of Dr. J. D. Griffith, of Kansas City. A most interesting program has been prepared, and the meeting promises to be one of unusual excellence.

THE Niagara Falls Academy of Medicine held its regular monthly meeting April 14, 1902, at the office of Dr. C. G. Leo-Wolf. A paper entitled, The use of electricity in medicine was read by Dr. W. A. Scott and Dr. Leo-Wolf delivered the president's address.

COLLEGE AND HOSPITAL NOTES.

AT THE Buffalo Hospital of the Sisters of Charity an examination was held April 23, 1902, for six internes, the following-named being the successful candidates: J. R. Sackrider, East Aurora; Albert Frye, Buffalo; Charles Haase, Elmira; J. J. Brown, Wellsville; E. Haley, Buffalo, and Thomas J. Walsh, Buffalo; Messrs. Brown, Haley and Walsh enter upon their duties in May, and the others November 1, 1902.

THE German Hospital has recently put into service a handsome new ambulance of the most approved pattern. It has all the equipment essential and is of the most modern construction. Ventilation is provided in the sides of the vehicle. For the ease of the patients the cot is suspended from the roof and smooth running will be secured by the rubber tires of the wheels. At the sides of the cot are adjustable seats for the surgeons.

THE consumption hospital, which was built to replace the one destroyed by fire two years ago, has been completed at the county farm and was thrown open to the inspection of the public for the first time March 28, 1902.

The building cost \$49,900 and its equipment \$5,000 more. It has accommodations for 54 patients, which can be increased to 70 if especially required. The plans were drawn by architect Metzger. The building is two stories in height and is constructed of limestone quarried on the county farm.

Dr. E. J. Gilray, who has served in that capacity for some years, continues as resident physician in charge.

THE Medical Department of the University of Buffalo will hold its fifty-sixth annual commencement at the Teck Theatre at 11 o'clock, on the morning of May 2, 1902. The Rev. Dr. David J. Burrell, of New York, will deliver the address to the graduates. The Alumni Association will hold its twenty-seventh annual meeting on the same day in the University building. The usual ceremonies will take place, including class reunions, luncheons and the annual dinner. The latter will be given at the Hotel Iroquois at 6.30 p.m., ladies being invited.

The scientific program will be called at Alumni Hall in the afternoon and the president, Dr. F. H. Moyer, of Moscow,

will take the chair at 2 o'clock and deliver his address. Then will follow a symposium on gunshot wounds, to be participated in by Major Louis A. LaGarde, M.D., U.S.A., of the Soldiers' Home, Washington, D.C.; Lt.-Col. G. Sterling Ryerson, M.D., C.A.M.S., South African Contingency, Toronto; Maj. William P. Kendall, M.D., U.S.A., Fort Porter, Buffalo; Roswell Park, William Warren Potter, William C. Phelps, Herbert M. Hill, Ph.D., William H. Mosher, Phar. D., of Buffalo, and William H. Bergtold, of Denver, Col. The papers will be illustrated by stereopticon views, and in addition there will be an exhibition of guns, ancient and modern, projectiles and explosives.

A SUMMER school will be held at Syracuse University for six weeks, viz.: July 1 to August 9, 1902. This school is designed to accommodate (1) teachers of elementary and secondary schools; (2) students who may desire to review college preparatory work, or (3) to prepare for state preliminary examinations; (4) students desiring to do college work during the summer. Credit will be given for work under (4).

Libraries and laboratories will be open and available. Tuition for three or more courses, \$25; for less, \$10 a course. Thoroughly competent men will give the instruction. Courses will be offered in Greek, Latin, German, English, history, pedagogy, mathematics, physics and chemistry, and in other subjects if arranged for in advance. For circular and information, address Prof. J. R. Street, Ph.D., Director, Syracuse University.

THE faculty of the medical department of the University of Buffalo offers two prizes, a first of \$15.00, and a second of \$10.00, for the best college song which shall be suitable for the use of the alumni and students of the University of Buffalo.

The conditions of the competition are as follows: (*a*) the contest is open only to the alumni and students of the four departments of the University of Buffalo—medicine, pharmacy, law and dentistry; (*b*) copies must be in the hands of the judges on or before September 15, 1902, signed by the contestant, naming department and class year; (*c*) the judges to award the prizes are to be appointed by the faculty of the medical department of the University of Buffalo. Send all communications to executive committee, Alumni Association, University of Buffalo, Buffalo, N. Y.

BOOK REVIEWS.

LIBERTINISM AND MARRIAGE. By DR. LOUIS JULLIEN (Paris), Surgeon of Saint-Lazare Prison; Laureate of the Institute, of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglas. Pp. v.—169. Philadelphia: F. A. Davis & Co. 1901. [Price, cloth, \$1.00 net.]

A man with Jullien's experience cannot fail to be interesting when he writes, especially when he puts his thoughts on paper in narrative form, touched with anecdote and trimmed with the quaint simile of the French. The book is not a text-book, it does not teach much of anything of treatment, but it tells a great deal which one should know about the management of venereal disease, provided, of course, one is practising where husbands keep mistresses and wives have lovers. Jullien does not mince matters. He speaks out bluntly and incisively. He takes up the questions involved in regular order and treats them in a clear-sighted manner and in language so simple and unscientific that it is all quite refreshing. His entire talk,—the whole thing is much like a confidential chat,—is so free from the affectation of modesty, that one marvels somewhat until he remembers that the incomparable Jullien is in Paris where people live for pleasure and pleasure never dies. If an American had written this book he would have said that a bachelor on the eve of his marriage sometimes, under the influence of the conviviality of a farewell supper, laid himself open to infection. An American would for the sake of modesty, which in medicine at least is a golden virtue, have left something for the imagination and his book would have been entirely free from shocks. Does Jullien? Listen:

“The farewell to bachelor life usually involves, besides a great deal of drinking, certain dangerous proceedings which are apt to favor an attack of blenorrea. Before breaking off with those pretty girls whom the public—which is not always so just in its appreciation—calls impure women, the young man visits them for the last time, invites them to a farewell spread and—too often—goes to bed with them.”

That is the style of the book from beginning to end. It is a genuine heart to heart talk which has all the naïvete, all the unconscious charm, of an “Aunt Mary's Corner” in a young lady's journal.

And in addition to the delights of Jullien's style of writing the book is really valuable, for this great specialist has drawn freely on his experience for material.

He begins with some very plain talk on professional discretion. Then follow chapters on the evolution of gonorrhea—a word he never uses, calling it blenorrea, which is more polite—acute and chronic, in man; cured in man; acute and chronic and cured in woman. Each chapter is subdivided into three parts: “In Single Life,” “Just Before Marriage” and “After Marriage.” It is all according to the viewpoint of the reader which chapter will interest him most. If one, deeply imbued with a cleanly desire to add to his scientific knowledge,

takes up the book he will in all likelihood find most interest in those portions which tell, in the graphic word paintings of a Dickens, the terrible effects of gonorrhea in the innocent; there are those who enjoy a certain style of old and classic writing. They will find here the suggestiveness of a Boccaccio, the bluntness of a Smollett and the brilliant frankness of a Rabelais.

The book is valuable in spite of its evident rhetorrhea for there are many suggestions which will not be amiss in the most correct and best regulated practice. It's worth reading anyway, if for no other reason than to learn how a great specialist and diplomat handles cases, and safely steers the ship of domestic happiness through a sea of gonorrheal pus and keeps it from going to pieces on the rocks of divorce.

N. W. W.

DISEASES OF THE INTESTINES. Their Special Pathology, Diagnosis and Treatment. With sections on anatomy and physiology, microscopic and chemic examination of the intestinal contents, secretions, feces and urine; intestinal bacteria and parasites; surgery of the intestines; dietetics; diseases of the rectum, etc. By JOHN C. HEMMETER, M. D., Ph. D., Professor in the Medical Department of the University of Maryland; Consultant to the University and Director to the Clinical Laboratory, etc. In two volumes. Volume I and II. With many original illustrations, some of which are in colors. Large 8 vos., pp. 742-680. Philadelphia: P. Blakiston's Son & Co. 1901-1902. [Price, \$5.00 per volume.]

The first volume of this great work came from the press in the autumn of 1901; the second volume has but lately issued. They should be considered together in order to be appreciated, as they are consecutive to each other, the second being a continuation of the first, and when viewed in conjunction with the author's previous work on diseases of the stomach, help to constitute a complete treatise on diseases of the gastro-intestinal tract.

The first volume considers the anatomy and physiology of the intestinal tract; methods of diagnosis; therapy and materia medica of intestinal diseases; diarrhea, constipation, enteralgia, and enterodynia; meteorism, dystrypsia, enteritis, colitis, dysentery, intestinal ulcers, and intestinal neoplasms. These several sections are elaborated with much detail; giving many original suggestions relating to diagnosis, clinical research, and histological study.

In the second volume the medical side of appendicitis is fully set forth and then follow, in consecutive order, sections devoted to the consideration of tuberculosis, syphilis, and actinomycosis of the intestines; the occlusions, contusions, rupture, enterorrhagia and intestinal surgery, the borderline between medicine and surgery being set forth under the latter head; atrophy, abnormalities of form and position; thrombosis, embolism, amyloidosis; neuroses of the intestine; intestinal parasites, and, finally, diseases of the rectum are comprehensively dealt with, in a chapter prepared by Dr. Thomas C. Martin, of Cleveland. In the first volume is an important chapter upon the examination of the feces and urine, prepared by Dr. Harry Adler, of Baltimore.

The foregoing group of the general subjects that form the bulk of the treatise will convey but a slight idea of its real value or the comprehensiveness of its scope, still less of the minute scientific detail or great practical character of the work; but, perhaps, enough to afford the reader a hint as to its importance as a contribution to the literature of gastro-intestinal disease,—indeed, the first of strictly American origin that approaches anything like completeness, or that has claim to such distinction.

Dietetic treatment is becoming more and more important as it becomes better and better understood, and Hemmeter has made a careful study of the principles which are involved in the therapy of diet. He applies them with scientific skill, and makes dietary prophylaxis, so important in many diseases, not only fascinating as a study but practical and effective as a treatment.

The general physician will be greatly aided in the reading and consulting of this work and will gain a knowledge of dietary management not heretofore as effectively set forth or as clearly demonstrated. He will be convinced by its logic and become an exponent of the more modern and sensible view, that not alone is cure due to drug ingestion, but often to well regulated methods and habits of life, especially including a proper dietary regimen.

A TEXTBOOK ON DISEASES OF THE EAR, NOSE AND THROAT. By CHARLES H. BURNETT, M.D., E. FLETCHER INGALS, M.D., and JAMES E. NEWCOMB, M.D. Octavo, pp. 734. Illustrated. Philadelphia and London: J. B. Lippincott Co. 1901. [Price, \$5.00.]

This work is divided into three parts, each of which has been written by an experienced and well-known teacher and writer on these subjects. The first part, diseases of the ear, is by Dr. Charles H. Burnett, of Philadelphia, one of the most celebrated and most skilful aurists in the United States. The second part, diseases of the nose and naso-pharynx, is by Dr. E. Fletcher Ingals, assisted by Dr. O. T. Freer, both of Chicago. Dr. Ingals has been known for many years as one of the best teachers and writers of his specialty. The third part, diseases of the pharynx and larynx, is by Dr. James E. Newcomb, who is recognised as one of the most capable teachers and writers in his specialty in New York City.

The thoroughness of this book is evident on every page that one reads. Nothing that pertains to disease of the ear, nose or throat seems to have escaped the consideration due it by the authors. One is surprised that so much valuable information could have been brought together in so clear a manner, in so small a book; and while it may be valuable as a text-book for students and general practitioners, it is equally valuable to the specialist as a work of reference.

The writer of the chapters devoted to diseases of the ear had, perhaps, the best opportunity of describing new methods of treatment and other advances, for his treatments "are," as he

says in the preface to the book, "at once the newest and accepted as the best by the leading specialists." Otology has undergone more changes than has either rhinology or laryngology during the last decade. Every page of this portion of the book has upon it the stamp of the progress which otology is making.

The chapters devoted to anatomy and physiology of the ear are well worth reading; while the latter portion of this part of the book, descriptive of purulent diseases of the middle-ear and their complications, is almost exhaustive.

The last two divisions of this work are equally concise and exact, but the authors have not had the opportunity to bring new material into the text which Dr. Burnett had; for rhinology and laryngology have not been making the rapid strides forward that otology has. Yet every chapter might be dwelt upon, for good points are evident everywhere; for example, the treatment of deflection of the nasal septum, in the chapter on diseases of the nasal septum, is well worth reading by all who have not strong prejudices in favor of a particular operation on the septum. We do not believe that a more reasonable presentation of the comparative merits of the various operations upon the septum has ever been written. Equally striking is Dr. Newcomb's description of the various methods of treating tuberculosis of the larynx.

These are only illustrations, other examples of equal merit might be multiplied, but it is not necessary to do so. The merits of this book will manifest themselves at once to the reader.—W.S.R.

PERU HISTORY OF COCA. "The Divine Plant" of the Incas. With an introductory account of the Incas, and of the Andean Indians of today. By W. GOLDEN MORTIMER, M. D., Fellow of the New York Academy of Medicine; Member of the Medical Society of the County of New York; Member of the New York Academy of Sciences; Member of the American Museum of Natural History; formerly Assistant Surgeon to the New York Throat and Nose Hospital, etc. Octavo, pp. xxxii.—576. With 178 illustrations. New York: J. H. Vail & Co. 1901. [Price, \$5.00 net.]

This history—it should be called a story—is a most interesting piece of work and bears all the evidences of painstaking and searching preparation. Dr. Mortimer has added to the literature of the world a historical work which will repay careful study. The title is and is not misleading, for while the book tells all that is known of the divine plant of the Incas from earliest time and its uses by the Indians, it also gives a most interesting account of the Andean Indians of today. It is the most extensive and exhaustive work on the subject which ever has been written. Interest is added to the purely therapeutic side of the book by tales of travel and adventure and conquest which were necessary to give to science the use of coca.

The origin and uses of the divine plant are traced from the earliest accounts which are to be found. The story begins with the Incas and follows along the life of these remarkable people until their overthrow by the Spanish. It tells of their indus-

tries, religious rites, science, arts and potteries. Full of life and color it commands admiration. Dr. Mortimer spent years in the preparation of the book and is deserving of the highest praise for the interesting story he has given us. The book is profusely illustrated.

N. W. W.

A TEXT-BOOK OF PHARMACOLOGY. Including Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc. By TORALD SOLLMANN, M. D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio. Royal 8vo volume of 880 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. [Price, cloth, \$3.75 net.]

This work aims to furnish, in a manner suited for reference and study, a scientific discussion and definite conception of the action of drugs, as well as their derivation, composition, strength, and dose. The author bases the study of therapeutics on a systematic knowledge of the nature and properties of drugs, and thus brings out forcibly the intimate relation between pharmacology and practical medicine.

The work is divided into four parts: Part I., dealing with the preparation and prescribing of medicines, and toxicologic analysis; Part II., with pharmacology, therapeutics and materia medica; Part III., with practical exercises and Part IV., with an appendix. In Part I. the author goes over the ground which beginners in pharmacy and dispensing physicians must follow, describing the gross anatomy and chemistry of plants, pharmaceutical methods, special pharmaceutical preparations and gives a very important and interesting chapter on prescription writing. The different flavoring methods are thoroughly described, as are the combinations which appeal to the taste as well as to the eye.

Under Part II., the author takes up those drugs whose main action occurs after absorption, and also those drugs whose action is a local one. These chapters comprise the bulk of the work and each drug is thoroughly dealt with in its different medical phases. Part III., is a laboratory guide and deals with the methods in vogue, effects of drugs and animal experiments. Part IV., the appendix, takes up the methods of analysing the causes of pharmacologic action, dose table and drug index.

Practitioners and students will find the work an admirable guide in that most important part of their equipment—namely, how to use drugs accurately and efficaciously. The book will also be of the utmost service, not alone to students and practitioners, but also to druggists and everyone interested in the use of medicines.

W. C. K.

THE INTERNATIONAL MEDICAL ANNUAL. A Year-Book of Treatment and Practitioners' Index. Thirty-six contributors, American and Foreign. Twentieth year. Octavo, pp. 688. New York and Chicago: E. B. Treat & Co. 1902. [Price, \$3.00.]

For twenty years Treat's Annual has been before the profession as a help and guide in their daily work, and in that time it

has grown from a small book of 300 pages to a large handsome volume of nearly 1,000 pages. Not alone in size has it grown, but in quality, and in its ability to keep pace with the newest thought and experience has Treat's annual succeeded and proven its worth. Today "The Annual" is a household name wherever the profession of medicine is recognised.

The 1902 Annual is built on the same broad lines as the preceding volumes—with its review of therapeutic agents and dictionary of materia medica, followed by an alphabetic review of the latest work done during the year in medicine and surgery. Special articles on such subjects as arsenical poisoning, aseptic surgery in New York, clinical examination of the blood, diseases of the ear, colony treatment of epilepsy, diseases of metabolism, formic aldehyde in the treatment of phthisis, high frequency currents in phthisis, lateral curvature of the spine, vision and x-rays are included in the body of the work. The annual review of sanitary science and new books add to the general usefulness of the book.

The illustrations are many and excellent and the make-up of the book is uniform with other editions. W. C. K.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A Practical Exposition of the methods, other than Drug-giving, useful in the prevention of Disease and in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption, etc. In eleven 8vo volumes. American, English, German and French authors. Volume VI. Dietotherapy and Food in Health. By NATHAN S. DAVIS, Jr., A. M., M. D., Professor of the Principles and Practice of Medicine in Northwestern University Medical School; Physician to Mercy Hospital and Wesley Hospital, Chicago; Member American Medical Association, etc. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. [Price for the set complete, \$27.50 net.]

The progress of this useful series of books is watched with interest. In it subjects are discussed that are too much neglected by the average physician. Specialists, in particular, are prone to overlook the care of the general system in their eagerness to correct the particular fault for which they may be consulted.

This number of the series is of particular importance because it deals with dietetics,—a subject that bears the closest relation to health and disease. It is one, moreover, that deeply concerns each individual, because its laws are violated daily by people of intelligence, who expect a doctor to prescribe a magical drug that will correct at once the errors of years.

The book before us is divided into two parts; the first considers the general principles of diet, and diet in health; the second part deals with diet in disease. To know how to properly feed the sick is only second to a knowledge of how to feed those who consider themselves well. In the first part, the several important articles of diet are described, their value set forth, and their dangers

warned against. In the second part the diet applicable to the most common or important diseases is announced, and directions for its preparation and administration are given. It is a book that every intelligent person may read with profit.

LEA'S SERIES OF POCKET TEXTBOOKS. Hayden on Venereal Diseases. A Pocket Text-book of Venereal Diseases. For Students and Practitioners. By JAMES R. HAYDEN, M. D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. New (3d) edition, thoroughly revised. In one 12mo volume of 304 pages, with 66 engravings. Philadelphia and New York: Lea Brothers & Co. 1901. [Cloth, \$1.75 net; flexible leather, \$2.25 net.]

A third edition of this excellent volume should speak for itself. Still Hayden has found it necessary to make many changes from the second, which brings it practically up to date. A few points seem to have been lost sight of or not considered of sufficient importance to mention; for example, the use of leeches in acute prostatitis, resolution being brought about by these in a few hours, where days would be necessary under the advised treatment. The same may be said of silver in acute cystitis, say in 1-15,000 solutions, the patient not being confined to bed at all, while the result is about the same as in acute prostatitis.

In the treatment of chronic gonorrhea the author still clings to the use of the catheter for introducing the solution. It is the reviewer's opinion that this is entirely unnecessary, only producing irritation, while the solution does not distend the canal the same as though introduced from the meatus with the syringe as the author advises. Hayden must be disagreed with in the opinion that filling the urethra from the meatus does not distend the entire anterior canal, and if used carefully no traumatism of any account will result. Furthermore, it is the reviewer's findings that even eight ounces of urine will not thoroughly cleanse the canal of all adherent pus and debris, which if allowed to remain is a most serious obstacle in that it is loaded with pyogenic bacteria that cannot but be forced into the many sinuses of the prostate, thus tending to increase the trouble. If preinstrumental flushing was practised in every case there would be less follicular prostatitis, epididymitis and the like. On the whole, however, no more valuable work on the subject with which it deals has been published in recent years. J. H. D.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. Thoroughly revised American from the fifteenth English edition. In one imperial 8vo volume of 1,246 pages, with 780 illustrations. Philadelphia and New York: Lea Brothers & Co. 1901. [Price, with illustrations in black, cloth, \$5.50 net; leather, \$6.50 net. Price, with illustrations in colors, cloth, \$6.25 net; leather, \$7.25, net.]

A revision of Gray's anatomy interests every student of medicine. It is a perennial favorite, and with good reason. Henry Gray was doubly a genius, being equally a born anatomist and a born teacher. His methods of presenting anatomical

knowledge in text and picture were such a conspicuous and rational advance in his first edition that it instantly won the foremost place, which has never since been disputed.

No better evidence of this is needed than the announcement of a new revised American edition from the fifteenth English edition. No introduction of this work is necessary, it suffices simply to say, "A new edition of Gray," and every student of medicine in America, as well as in England, knows that the demand for Gray's anatomy is as persistent today as it was twenty years ago.

The foremost anatomists have been engaged in the many successive revisions, of which the present is perhaps the most thorough-going. Every page has been scrutinised and whole sections rewritten, notably those on the brain, spinal cord, nervous system and viscera. The magnificent and unique series of illustrations has been enriched with 231 new engravings, and the use of colors has been greatly increased.

The publishers are to be congratulated on the efficient way in which they have built the book, making it a first-class work in every respect, thereby keeping pace with the editions.

W. C. K.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1902. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D. In two volumes—Volume I, including General Medicine, octavo, 700 pages, illustrated; Volume II, General Surgery, octavo, 684 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. [Price per volume: Cloth, \$3.00 net; half-morocco, \$3.75 net.]

This work continues to be issued in two volumes, one on medicine and one on surgery,—a most excellent plan. It contains a most satisfactory selection of useful literature gleaned from the best periodicals, text-books, monographs and other sources, carefully arranged and scientifically commented upon, by men competent to interpret their value and place.

The illustrations though not numerous are well chosen and the general make-up of the book is most satisfactory. It is a work that cannot be reviewed in the ordinary sense of the term, but it must be seen to be appreciated. It is very helpful to the over-worked physician.

STUDIES IN THE PSYCHOLOGY OF SEX. Sexual Inversion. By HAVELOCK ELLIS, L. S. A. (England). Fellow of Medico-Legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; General Editor of the Contemporary Science since 1899. Volume II. Completed in five volumes. Pages xi.—272. Philadelphia: F. A. Davis Co. [Extra cloth, \$2.00 net, delivered.]

The thoroughness with which the author has written will be admitted by all who read the book. The value of his researches will be questioned by many.

The German dictum, "nichts neues," will be pronounced by

those who require some advance in a special field of knowledge as an excuse for a new book. Indecent and unnecessary will be the judgment of many.

Our own opinion of the volume before us is that it presents in an interesting and compact form the existing knowledge on this subject. Historically considered, it is very complete; psychologically it is interesting and valuable because of the confessions which are made by men and women inverters.

The book must be judged as to its usefulness. We can see little good accomplished for, in the author's words, "we can seldom safely congratulate ourselves on the success of the cure of inversion."

Those who desire to study the subject of sexual inversion will find this book a most useful one. J. W. P.

SYPHILIS. A Symposium of Special Contributions from Seventeen Different Writers. New York. E. B. Treat & Co. 1902. [Price, \$1 00.]

The value of this small volume can scarcely be overestimated, and it is quite proper to say that no practitioner of medicine, general or special, should be without it. The names of the contributors are: L. Duncan Bulkley, Follen Cabot, Jr., Louis A. Duhring, Prof. Fournier, Eugene Fuller, E. B. Gleason, William S. Gottheil, Robert H. Greene, Norman B. Gwyn, Orville Horwitz, Edward L. Keyes, G. Frank Lydston, D. J. McCarthy, Thomas G. Morton, Boardman Reed, A. Robin and J. D. Thomas. It can be carried easily in the pocket and certainly is entitled to be called, *multum in parvo*. J. H. D.

BOOKS RECEIVED.

Saunders's Medical Hand-Atlases. Atlas and Epitomé of Otolology. By Gustav Brühl, M. D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen, Smith, M. D., Clinical Professor of Otolology, Jefferson Medical College, Philadelphia. With 244 colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$3.00 net.]

Saunders's Medical Hand-Atlases. Atlas and Epitomé of Operative Surgery. By Dr. Otto Zuckerkandl, Privatdocent in the University of Vienna. From the second revised and enlarged German edition. Edited, with additions, by J. Chalmers DaCosta, M. D., Professor of the principals of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second edition, thoroughly revised and greatly enlarged. With 40 colored plates, 278 text illustrations and 410 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$3.50 net.]

The Mental State of Hystericals. A Study of Mental Stigmata and Mental Accidents. By Pierre Janet, Litt. D., M. D., Professor of Philosophy at the College Rollin. With a preface by Professor J. M. Charcot. Translated by Caroline Rollin Corson. Octavo, pp. 553. New York and London: G. P. Putnam's Sons. 1902.

Manual of Childbed Nursing, with Notes on Infant Feeding. By Charles Jewett, A. M., M. D., Sc. D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital. 12mo, pp. 84. Fifth edition, revised and enlarged. New York: E. B. Treat & Co. 1902. [Price, 80 cents.]

Genito-Urinary Diseases and Syphilis. For students and practitioners. By Henry H. Morton, M. D., Clinical Professor of Genito-urinary Diseases in the Long Island College Hospital; Genito-urinary Surgeon to the Long Island College and Kings County Hospitals and the Polhemus Memorial Clinic. Illustrated with half-tones and full-page color plates. Pages xii—372. Philadelphia: F. A. Davis Co., Publishers. 1902. [Price, extra cloth, \$3.00 net, delivered.]

The Diagnosis of Surgical Diseases. By Dr. E. Albert, late Director and Professor of the first Surgical Clinic at the University of Vienna. Authorised translation from the eighth enlarged and revised edition, by Robert T. Frank, A. M., M. D. Octavo, pp. 427. With 53 illustrations. New York: D. Appleton & Co. 1902. [Price, cloth, \$5.00.]

The Diagnosis of Nervous and Mental Diseases. By Howell T. Pershing, M. Sc., M. D., Professor of Nervous and Mental Diseases in the University of Denver; Neurologist to St. Luke's Hospital, etc. Small octavo, Illustrated. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$1.25.]

A Reference Handbook of the Medical Sciences. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten. Edited by Albert H. Buck, M. D., New York City. Volume IV. E. R. G.—I. N. F. Illustrated by chromolithographs and 859 half-tone and wood engravings. Nine volumes, imperial 8vo. New York: William Wood & Co. 1902. [Price, muslin, \$6.00 per volume; leather, \$7.00 per volume; half-morocco, \$8.00 per volume.]

The Practical Medical Series of Year Books. Ten volumes. Issued monthly under the general editorial charge of Gustavus, P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Volume IV. Gynecology. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago. With the Collaboration of William Healy, A. B., M. D. 12mo, pp. 212. Illustrated. Chicago: The Year Book Publishers. 1902. [Price, \$1.25.]

A Handbook of Appendicitis. By A. J. Ochsner, M. D., Professor of Clinical Surgery, College of Physicians and Surgeons, Medical Department of the University of Illinois; Surgeon to the Augustana Hospital, etc. Pp., 182. Illustrated. Chicago: G. P. Engelhard & Co. 1902. [Price, \$1.00 net.]

LITERARY NOTES.

THE *Cleveland Medical Journal* is making a name for itself as one of the leading exponents of medical thought in the central area of the country. We have before called attention to the consolidation of two journals into this splendid magazine, and evidently no mistake was made in that union judging by the quality of the several editions of the new journal already issued.

THE Charity Eye and Ear and Throat Hospital, of Buffalo, has issued its 10th annual report for the year ending October 1, 1901. It makes a creditable showing of good work done. The death of Dr. F. W. Abbott, who was an active member of the staff, is touchingly recorded in it, accompanied by a plate portrait.

THE Interational Journal of Surgery Company has in press a new book by Dr. George G. Van Schaick, of New York, entitled, *Regional Minor Surgery*.

PRACTICE for sale. See advertising page xxiv.

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ORIGINAL COMMUNICATIONS.

The Indications for the Radical Mastoid Operation with a Description of its Technique.¹

By W. SCOTT RENNER, M. D., C. M.,

Clinical Professor of Laryngology, University of Buffalo; Member of the American Medical Association; Fellow of the American Laryngological, Rhinological and Otolological Society, etc.

IT SEEMS but proper that some outline of the great progress made in aural surgery during the last decade should be presented at a meeting of this club. This is a task to which I do not pretend to be equal. An enumeration of the development, step by step, of each technical procedure would consume your time unnecessarily, and at the same time would prevent my dwelling upon the importance of many things which progressive aurists are doing today.

I hope, under the title I have chosen for this paper, to point out some of the radical changes which have taken place in the treatment of chronic otorrhea and its consequences. I shall not attempt to compare present methods of treatment with old ones, but shall, after pointing out the fatal results of neglecting to treat chronic otorrhea, describe the anatomy of the parts in relation to the pathology of chronic otorrhea and its sequelæ.

I shall next describe the pathology of the changes that occur in the various forms of otorrhea, which will give me an opportunity to point out the cases of otorrhea that demand the radical operation for their cure, as well as those which should be treated by simpler methods; and, finally, I will demonstrate the radical operation and tell you how it differs from the so-called "Schwartz's operation," done in acute mastoiditis; at the same time I shall point out the anatomical dangers that lurk in the region of the mastoid, and I hope incidentally to

1. Read before the Buffalo Medical Club, March 19, 1902.

describe the modifications of the operation, which may be required for the treatment of the various intracranial complications of this disease. By doing this, I hope to cover an important part of the progress made in otology in recent times, but by no means all of it.

The progress made in aural surgery during recent years is equally great, if not greater, than that made in any department of surgery. The general surgeon may say that the aurist is encroaching upon his territory. That, however, is not true, for what the aurist is doing today no one was doing a few years ago.

The aurist has to thank the general surgeon for having taught him many principles which have made it possible for him, with an accurate knowledge of the anatomy of the parts, to follow the results of suppurative otitis media into the brain, blood-sinuses and the like.

Chronic otorrhea is a disease which usually has been neglected, and many people have died unnecessarily of such neglect. Sometimes the otorrhea has been recognised as the cause of death, but in many cases, especially in children, it has not been suspected of having anything to do with the disease of which the patient died.

Statistics are often misleading; a few, however, will show how frequently this disease is the cause of death through intracranial complications, such as brain abscesses, sinus thrombosis, meningitis, and the like. In 1890 Pitt found in 9,000 post-mortems made up to that time in Guy's Hospital, 57 had died from complications of middle-ear trouble, that is 1 of every 158 cases; Barker found that of 8,028 post-mortems made in three other London hospitals in twelve years, 45 had died of such complications. These deaths, of course, have nothing to do with the operative cases. Burkner found 104 deaths among 33,017 ear cases; that is, .3 per cent.; Randall found 15 deaths in 5,000 cases of ear trouble; Bezold 7 deaths out of 325 cases of chronic otorrhea.

According to Cheval there were among 1,137 cases of middle-ear inflammation, 1 death from meningitis, 2 from brain abscesses, 2 from sinus-phlebitis and 5 from pyemia.

Schwartz found in 825 internal and middle-ear diseases in Prussia, 30 deaths from complications; that is, .35 per cent.

Barker makes the point that many of the cases do not go to special hospitals, but gives the following collective report from the University College Hospital, London, and his personal clinic.

He found that of 820 cases of acute and chronic purulent diseases, $2\frac{1}{2}$ per cent. died of complications, between 1877 and 1888.

The relative frequency of the different intracranial complications have been made out from the literature on the subject in the Archives of Otology, volumes 1 to 30, and the *Zeitschrift für Ohrenheilkunde*, volumes 1 to 23, to be the following: sinus-phlebitis and pyemia were found in 41 cases; brain abscesses in 43 cases; uncomplicated meningitis in 31 cases; total, 115 cases.

Among these 115 cases there were 50 abscesses and 52 diseased sinuses. In Pitt's 9,000 cases there were otitic brain abscesses, 18; diseased sinuses, 22; otitic meningitis, 25; some of these, however, are duplicates. Of course, the number of complications can be much diminished if the cases are operated upon before more serious complications set in. Early in the trouble we find only extradural purulent inflammation, which has not yet implicated the sinuses, the pia, or the substance of the brain.

When we consider the relative frequency of the complications due to diseases of the ear or to other diseases, aurists who only see the aural brain complications naturally give the percentage due to ear diseases too high. For instance, according to Schwartze and Barr, 50 per cent. of all brain abscesses are due to aural causes. In order, however, to arrive at a more correct estimate, we must again take the statistics of general hospitals. For example, among Pitt's 9,000 post-mortems there were 56 cases of brain abscesses, the causes of which were as follows: abscesses of brain, due to purulent diseases of the ear and temporal bone, 18; abscesses of brain, due to purulent diseases of the ear and other cranial bones, 8; abscesses of brain, due to traumatic causes, 9; abscesses of brain, due to diseases of the lungs, 8; abscesses of brain, due to pyemia, 9; and 4 to unknown causes—56 in all.

Treitel found in 6,000 post-mortems made at the "Charite" in Berlin, that there were 21 cases of brain abscesses, of which 7 were of aural origin. So that from these general hospital statistics it appears that one-third of all brain abscesses are due to diseases of the ear.

Pitt found that of 44 cases of sinus-phlebitis and thrombosis, 22 were due to diseases of the ear and temporal bone; 4 were due to purulent diseases in the neighborhood of the sinuses; 3 were due to carbuncle; 7 were due to traumatic causes; 8 were

due to weakening diseases. Leaving out the simple thrombosis without phlebitis, two-thirds of these cases are of aural origin.

The frequency of meningitis as a complication of middle-ear trouble is much less, for there were of all forms of meningitis among Pitt's 9,000 post-mortems, only 25 due to aural causes, of which 15 were uncomplicated, while there were 162 due to tuberculosis, and 133 due to different causes, including syphilis; that is to say, aural meningitis, compared to other forms of meningitis, is rare. The majority of those in whom intracranial complications were found in post-mortems, were between the ages of 10 and 30. A less number die from ear trouble between the first and tenth year than in either of the following decades.

Intracranial complications of chronic diseases of the temporal bone are much more common than in the acute purulent trouble of the ear. This probably is due to the fact that the chronic is of so long standing; some cases lasting from 25 to 50 years, without producing infection of the intracranial cavity.

Bergmann saw 2 cases of 80 years each who had had purulent discharge after scarlet fever since early childhood.

Since we have established the fact that chronic otorrhea is a dangerous disease because it causes intracranial complications, which will certainly produce death if not prevented by an early operation, or unless they are cured by an immediate operation as soon as they have developed, it seems necessary that we should point out the course which the purulent trouble follows from the temporal bone to the interior of the cranial cavity. The entrance of pus into the intracranial cavity is possible through 5 out of 6 walls of the tympanum, as well as through the roof of the antrum and the mastoid cells.

First, the superior wall or tegmen tympani, consists partly of the petrous portion, and partly of the squamous portion of the temporal bone. In new-born children these two bones are separated by a space, which also crosses the tegmen of the antrum, through which a portion of the dura mater extends. This forms a connection between the lining of the tympanum and the intracranial cavity and contains fine branches of the middle meningeal artery, which spread out over the anterior wall of the antrum. This space closes at the fifth month of child life, and is represented later by a suture, and yet we find intracranial purulent complications much less frequently in nursing children than in adults, because in children the pus can pass out

through the same fissure to the surface of the mastoid, where it forms an abscess under the soft external covering, the skin and periosteum. The thickness of the tegmen varies greatly. Sometimes it is only the thickness of paper; sometimes it has holes through it; while in other cases it is many mm. thick. The purulent inflammation of the intracranial cavity does not seem to pass through these holes. It occurs more often where there is a carious destruction of the roof of the tympanum, when it results in meningitis and brain abscesses.

The lower wall of the tympanum is, at the same time, the floor of the tympanum and roof of the bulb of the jugular vein. This wall is thin in new-born children, but depends for its thickness on the size of the jugular fossa. Where the wall is thin the bulb of the jugular can be seen through the tympanic membrane. The bulb of the jugular has been incised five times while doing a paracentesis. It is probable that phlebitis of the jugular occurs through this more frequently than is recognised, for the tympanum and the jugular fossa are seldom examined post-mortem.

Anteriorly the tympanum is separated from the carotid canal by a bony wall through which pass one of two fine canals. Through this canal passes a fold of the tympanic mucous membrane. This contains arterial vessels which pass from the carotid artery. The accompanying veins pass through it to the vein which empties into the cavernous sinus.

The inner wall of the tympanum forms the outer wall of the labyrinth. Pus may pass to the labyrinth through the membranes of the fenestræ; or infection may follow the facial canal from infection entering it in its passage through the tympanum. Or, again, infection may enter the labyrinth where the capsule of the cochlea is destroyed by caries.

The posterior wall is made up of the aditus ad antrum, so that the roof of the tympanum and that of the antrum are on the same level and support the brain. In the lower part of the antrum is found a covered canal for the facial nerve, as well as one for the semicircular canal. Infection may here also enter the facial canal along with its branches—namely, the branch to the stapedius muscle and the chordi tympani; or through defects in its wall caused by caries or pressure of a cholesteatoma. In childhood pus may be carried to the brain through an opening which enters the cranial cavity beneath the semi-circular canal.

In new-born children the antrum is a cavity the size of a cherry stone. The tympanum is the size of that of an adult.

The antrum in an adult is the size of a small bean. In a new-born child there are no other spaces besides the antrum, the mastoid being at that time but slightly developed. At the third year the mastoid cells are found, and are then similar to those found in the adult. They all open into the mastoid antrum. The farther they are from the antrum the larger they grow. Where the bone is not diseased the largest cells are found in the tip of the mastoid. They sometimes extend into the occipital bone, into the zygomatic process, and along the Eustachian tube. Compact bone is not found in healthy mastoids; some are made up of spongy bone and contain but few spaces besides the antrum. The tympanum, the antrum, and the mastoid cells are in direct atmospheric communication with each other and are lined with a continuous muco-periosteal membrane.

There are many sources of chronic purulent discharge from the ear. It may arise from the tympanic mucous membrane, from disease of its bony walls, from polypi, and granulation in its cavity, or it may arise from the mucous membrane of the antrum, and from its bony walls.

I wish to dwell on certain forms of purulent inflammation which at times require the radical operation, and to tell when and why this operation is required. We can understand these cases better after we have become acquainted with one of their most constant companions—namely, osteosclerosis of the mastoid cells, which is found associated with any purulent inflammation of the mastoid, except purulent tubercular inflammation, or purulent inflammation of the mastoid in tuberculous individuals. Osteosclerosis is due to the deposit in the mastoid, of new bone in compact layers in the walls of the cells and elsewhere, until all that remains eventually, in some cases, of the air spaces is the antrum, which is surrounded by compact bone. The antrum is also sometimes lessened in size and may be obliterated. The auditory canal may be narrowed by this process. The density of the bone depends upon the duration of the disease. Where the process is advanced, the bone is greyish-whitish in color and without bloodvessels.

Chronic purulent discharge is always accompanied by some sclerotic change in the bone; this, of course, is not great where the discharge has lasted but a short time. This sclerosis does not of itself make the disease dangerous; it often protects the sigmoid sinus. The danger is caused by an obstruction to the discharge of pus from the antrum into the auditory canal, then

infection is driven through some of the preformed canals in the bone, or through caries of the walls between the antrum or attic and the cranial cavity, unless the obstruction to the discharge of pus is immediately relieved. Sclerosis, however, does not always resist the purulent process, for its walls are destroyed by it. Before opening a diseased mastoid we cannot estimate how much sclerosis we are likely to find. A long-standing purulent inflammation will naturally make us suspect sclerosis. Chronic inflammations here may be divided as follows:

1. Chronic purulent disease of the temporal bone (not associated with migration of epidermis from the tympanum into the mastoid).
2. Chronic purulent disease, associated with migration of the epidermis; that is, the so-called pseudo-cholesteatoma.
3. Congenital or true cholesteatoma, associated with purulent inflammation.

The first of these, chronic mastoiditis, is a disease of late childhood and early adult life which commenced in an acute otitis media five or ten years before; probably with an attack of scarlet fever or measles. Of Korner's cases of chronic mastoiditis 94 per cent. were between childhood and the 30th year, or 57 per cent. of them were between the 10th and 20th year.

Acute mastoiditis is a rapidly destructive process of the walls of the cells of the mastoid, *i. e.*, an otitis or osteomyelitis. Chronic mastoiditis is a slow process, confined to the walls of the antrum by the surrounding sclerosis. The antrum may be enlarged through the chronic disease, its walls being made up of softened discolored bone impregnated with granulations. Fistulous openings leading to the antrum are rare in chronic mastoiditis. When they are found they pierce the cortex through the mastoid fossa or the posterior superior wall of the auditory canal, the two places through which the antrum communicates with the surface by means of bloodvessels. When fistulæ of long standing are found in either of these places, they are usually due to an acute mastoiditis, occurring at the time of the primary otitis media. The mucous membrane of the antrum is generally destroyed or impregnated with granulations. The antrum itself is frequently filled with granulation tissue, but may contain inspissated pus, clear pus, or a simple clear jelly-like substance.

The walls about are, of course, either sclerosed or partly sclerosed. When the process has extended far enough, there

is left only the outer thickly sclerosed wall. The external surface is usually unchanged. The tympanic membrane is usually destroyed. The ossicles are sometimes destroyed. The tympanic cavity may be filled with granulations or polypi. Facial paralysis may occur. The caries of the roof of the tympanum and antrum may be found leading to the intracranial cavity with the consequent complications. The intracranial complications of this form of chronic mastoiditis are almost always the result of an acute exacerbation. These exacerbations occur by fits and starts, and have about the same symptomatology as an attack of acute mastoiditis—namely, fever, pain in the mastoid and tenderness on pressure. These attacks, with the rapid development of their complications, are the result of the retention of pus in the middle-ear spaces by an obstruction somewhere in the line of exit. This may occur in the aditus, the attic, the tympanum, or the external auditory canal, and may be brought about by inspissated pus, granulations or polypi.

In this class of cases we find a purulent discharge which has lasted for years. It may be very small in amount and has a very unpleasant odor. Crusts of inspissated pus, dislodged when the auditory canal is washed out, may be the only evidence of the discharge. The external auditory canal is often filled with granulations or polypi springing from the tympanum. The tympanic membrane is usually nearly gone. The hammer may be present with its handle extending, non-adherent, into the perforation, or it may be adhered to the promontory. The anvil is usually lost before the hammer. When no polypi or granulations are found the mucous membrane of the tympanum is thickened. The amount of hearing in these cases varies with the conditions of the tympanum, or the ossicles, and of the fenestræ, and the condition of the labyrinth to which inflammation may have extended through the fenestra, through caries of the capsule of the cochlea, or through a fistula of the horizontal semicircular canal in the antrum. Disease of the labyrinth is accompanied by dizziness and nystagmus.

Disease of the bone may occur without producing pain, and when pain does occur it is due to the retention of pus by obstruction to its discharge. These pains radiate to the whole side of the head. This pain should be distinguished from that due to a furuncle in the auditory canal. Pain due to retention of pus is generally associated with fever, otherwise chronic destruction of the mastoid, when not complicated, runs its course without

fever. Tenderness on pressure over the mastoid is a frequent symptom of pus retention. Swelling of the external covering of the bone is rarely found except in children, and then only when the external surface of the bone is diseased, either in the mastoid fossa, or the posterior superior wall of the auditory canal. Then we have infiltration of the skin, subperiosteal abscess and fistula through the skin, similar to that which we find in the acute mastoiditis of children, by breaking through of the pus into the digastric fossa. Bezold's mastoiditis may occur here, but much less frequently than in the acute mastoiditis. The general disturbance is not so marked as in acute mastoiditis. Cerebral symptoms such as hemicrania and loss of the power of concentration occur in chronic mastoiditis only when there is pus retention.

Diagnosis of the Chronic Purulent Disease of the Temporal Bone.—We will commence with the easier cases and go on to those more difficult.

1. If one finds a fistulous opening on the external surface of the mastoid, extending into the bone and associated with a chronic discharge from the middle-ear, there is a destruction of that part of the bone extending to the antrum.

2. If a fistulous opening is found in the posterior superior wall of the auditory canal, associated with a chronic discharge from the middle-ear, one must decide whether this fistula is associated with destruction in the mastoid, and whether it leads to the antrum, or whether it is only superficial and due to an erosion of the bony wall of the canal, following a furuncle. If the bone defect exists on the outer wall of the attic, the disease of the bone may be confined to this place.

3. If a scar, due to a fistula, or to a previous operation upon the mastoid is found, associated with chronic otorrhea, it is quite probable that there is still disease of the bony wall of the antrum. The diagnosis can only be confirmed by careful observation, according to the rules yet to be laid down.

4. If pain in the ear, in a case of chronic otorrhea accompanied by tenderness on pressure over the mastoid, or swelling in that region, is not due to a furuncle or retention of pus in the tympanum by some obstruction, such as polypi, it is due to a disturbance in the interior of the bone.

5. There are many cases of chronic otorrhea associated with disease of the bone in which there are none of the above-named conditions, either of the exterior of the bone, or the auditory canal, and yet the amount of bone destruction may be extensive.

The difficulty of diagnosis in these cases may be lessened by the following explanation. If the amount of pus is excessive, it cannot come from the tympanum alone. Should it come from above, it may arise from an extradural abscess or an abscess in the temporal lobe through a fistulous opening in the roof of the tympanum. Should it come from above and behind, then it must come from the antrum and mastoid. If the pus is fetid and does not lose its odor after repeated washing out with a tympanic syringe, it must come from a part not reached by the solution. If this syringing brings down regularly from above and behind masses of inspissated pus, it is certain that there is diseased bone, but if the pus loses its odor and contains no cheesy masses, it may be that there is only a purulent inflammation of the mucous membrane lining the antrum. This occurs in antra made smaller by osteosclerosis.

It is only possible in many cases, after long observation, to tell whether there is diseased bone and find out its extent and conditions, by the removal of other sources of pus formation, such as polypi, granulations, and disease of the ossicles. True and false cholesteatoma are, of course, also sources.

A few words in regard to the prognosis of cases in this class, which are not operated upon. Korner found that 94 per cent. of his cases of chronic mastoiditis operated upon were under thirty years, and yet there are many old people with chronic otorrhea; therefore, there are many who go beyond this time that seldom have mastoiditis. The prognosis in these cases cannot be held to be unfavorable. This is probably due to the extensive sclerosis which practically drives the purulent process out of the mastoid back into the tympanum.

Prophylaxis.—The prophylaxis of chronic mastoiditis consists of the adequate treatment of acute otitis media, and especially that due to scarlet fever, which easily becomes chronic; and further, acute mastoiditis should be thoroughly treated. The so-called "Schwartz's" operation should be perfectly done. The chronic processes easily follow a fistulous opening to the mastoid.

Indications for the operations.—Schwartz's operation, which is the simple exposure of the antrum with removal of the disease of the mastoid cells, has not proven itself sufficient in the chronic cases, hence the radical operation has been devised. The radical operation is indicated as soon as the diagnosis of chronic disease of the bone is established; that is, after it is

established that the pus does not come from polypi, granulations, diseased ossicles or from purulent inflammation of the mucous lining of the tympanum or antrum, but from the bony walls of the tympanum or antrum.

If the diagnosis is uncertain, then the operation should be done only under the following circumstances enumerated by Korner: (1) as soon, in a case of chronic otorrhea, as there are signs of pus retention, the cause of which is not immediately discovered; (2) when there is marked bony thickness of the auditory canal, preventing examination and treatment of the discharge which may result in its retention; (3) on the commencement of conditions which favor the development of intracranial complications, such as the purulent process attacking the labyrinth or facial canal; (4) on the first signs of the commencement of an intracranial complication. Should in any uncertain case none of these conditions be found, then the case should be treated as simply an inflammation of the mucous lining. Korner says he knows of no case, either of his own or in the literature, where a simple purulent inflammation of the antrum, with no obstruction to the discharge of pus, has led to intracranial complications. Unnecessary operating, or the desire to operate on the part of the surgeon in cases which heal eventually of themselves, brings the method into discredit and does more harm eventually than the failure to operate in a case where the diagnosis is uncertain. An operation may be performed for persistent fetid otorrhea without signs of inflammation of the mastoid, and without signs of retention of pus, when it has been established by examination of the ear that the formation of pus is not confined to the tympanic cavity.

We have still to speak of the two conditions which were originally grouped together by Kummel, under the name of cholesteatoma. The first of these, pseudo-cholesteatoma, or desquamative disease of the air spaces of the temporal bone, is due to migration of the epidermis of the tympanum, under certain conditions of pus forming in the middle-ear, from the tympanum into the attic and antrum, where the epidermis collects and forms cholesteatoma-like masses. True cholesteatoma of the temporal bone is like that of the occipital and inferior maxillary bones and that of the pia mater. It is a heteroplastic growth, which has its commencement in embryonic life. It has of itself nothing to do with a purulent otitis media, but becomes

frequently associated with it on account of its proximity to the tympanum and mastoid antrum.

Otitis media desquamosa or pseudo-cholesteatoma occurs most often after scarlet fever. This condition leads sometimes to the healing of the purulent process; at other times to the formation of cholesteatoma-like tumors in the antrum, which from pressure cause ulceration of the bone. This condition, like the simple chronic process, is accompanied by osteosclerosis, resulting likewise in the obliteration of the mastoid cells. The formation of these tumors generally occurs without general disturbances and without pain. It is only when the mass swells rapidly through an increase in the amount of pus, and when it cannot escape through the narrow passage-way, that pain and fever are produced. Small collections of epidermis in the attic may cause more marked symptoms, even making one suspect intracranial complications. In most cases the ossicles are only partly destroyed and the facial nerve is seldom disturbed.

Fistulous openings into the horizontal semicircular canal are sometimes found. This condition is followed by disease of the bony wall of the antrum and attic. Complications are produced similar to those which were described under the head of simple chronic mastoiditis. Sometimes the epidermis forms a sac-like lining to the cavity, which can be pulled out whole, while in other cases it forms a compact mass. It takes a long time before the mass is dislodged, and then only after having produced pain for some time. Where the amount of pus formation is small, it may take years before it is dislodged.

Diagnosis of Desquamative Mastoiditis.—When the walls of the tympanum can be viewed it is easy to see whether it is covered with this growth of epidermis or not. It is grey and glistening when dry; when moist it is of a dull grey color. It is easily distinguished from the mucous membrane. One can easily tell that there is an over-production of epidermis when dry or moist epithelium is seen behind the edges of a perforation, or when it extends into the auditory canal. The place where it makes its appearance in the canal may indicate the position of the mass in the attic or antrum. It is difficult to recognise this condition through a perforation in Schrapnell's membrane. When the flakes of epidermis cannot be seen they may be brought out by syringing.

In these desquamative cases the pus is small in amount and may dry into crusts which cover over small amounts of pus of

a very disagreeable odor. To make a diagnosis of the epithelial flakes the external auditory canal should first be thoroughly cleansed, after which the tympanic syringe should be used. When the flakes of epithelium are brought down by thus syringing, they are easily recognised; only the inexperienced can mistake them for inspissated pus. Sometimes very large masses of epithelium are removed in this way, and again no epithelium is found until syringing has been repeated several times. If the space is only carpeted with a layer of epithelium, the diagnostic syringing is useless. Then the diagnosis is only made out during the course of treatment.

The prognosis for healing without operation is better in these cases than in the true cholesteatoma. The healing is rapid where the air spaces are small and the entrance to them large. If the whole mass of epidermis is discharged spontaneously, the purulent discharge often stops of itself, but it may reappear after years. Spontaneous healing may follow the breaking through of large masses of epidermis into the auditory canal. These leave large cavities, but those cases in which a large cavity is found are usually due to the discharge of a true cholesteatoma. Proper treatment through the auditory canal often heals the purulent discharge and thus brings the desquamation to a standstill. Where considerable masses are imprisoned in large cavities with a narrow opening, there is danger of wearing away of the bone and extension of the destructive process. Any obstruction to the escape of pus in these cases, whether it is due to the covering of a perforation by a mass of epidermis or to obstruction of a narrow passage by granulations or polypi, is subject to the same dangers of intracranial complications as the uncomplicated mastoiditis.

Treatment.—Extraction of the hammer may be performed, and this should be followed by repeated syringing of the cavity by means of a tympanic syringe with sterile water or a weak formalin solution. This should be followed by the syringing of the parts in the same manner with alcohol. Where the fistula is located in the upper part of the tympanic membrane, the granulations first should be removed, after which it should be syringed in the same manner. This may be continued as long as the patient has no bad symptoms. The ossicles may then be removed if there are signs of the condition getting worse, such as increase of pus formation, or increase of the formation of epidermis. When one has patience to follow out this method of

treatment he will get frequently as lasting results as when he extracts the adherent hammer.

If the purulent discharge and the formation of epidermis do not cease after the removal of the hammer and the anvil, and the repeated syringing, there must be caries of some of the walls, and rough bone will be recognised when touched with the sound, or a granulomatous mass will be found in its stead. Sometimes the caries extends into the auditory canal and may leave a defect large enough to see the tegmen tympanum, when the case may heal spontaneously. However, it may be necessary to remove the surrounding carious parts by means of a sharp spoon. It is in this class of cases that Stacke's operation may be performed. The over-production of epidermis in the antrum stops frequently when the purulent discharge ceases. This occurs frequently after the continuous use of the tympanic syringe.

The radical operation is indicated for this condition, when the discharge and over-production of epidermis is not cured by removal of the ossicles and the continuous syringing of the tympanum, and when the same conditions occur that require the radical operation in the simple purulent discharge from the antrum and mastoid. When doing the radical operation it is only necessary to remove the lining epidermis where it lies over diseased bone.

True cholesteatoma, as was pointed out before, is a congenital condition which only becomes of clinical importance when it is complicated by, and infected with, the purulent inflammation; and, as the middle-ear is more or less inflamed during the acute exanthemata of childhood, whether clinically manifested or not, it is quite evident that most of these tumors which reach the air spaces of the temporal bone are apt to be infected early and thus come under the observation of a physician, while cholesteatoma of the frontal, occipital, and lower maxillary bone go unnoticed; therefore, we find them very frequently in children and young people. The majority are found clinically in the second decade. Cholesteatoma is, according to Kuhn, an epithelial, pearl-white tumor, varying in size from a bean to a hen's egg. Its surface is usually smooth, but may be uneven. It is formed of onion-like lamellæ, of polygonal epidermoidal cells, between which are often found cholesterol crystals in varying quantities. The tumor is surrounded with a fibrous membrane, which is connected with the periosteum of the cavity in which the tumor occurs.

The cholesteatomata may be found in the attic and the antrum, and the squamous portion of the bone. The bone is only destroyed by pressure when the bone is not infected by pus. Infection produces ulcerative destruction which is surrounded by an osteosclerosis. Thus, you see it is hard to say whether you have a true or false cholesteatoma. The tumor may expand the pneumatic spaces; it may extend into the tympanum; it may break through the posterior wall of the auditory canal; it may destroy the outer cortex of the mastoid, but seldom the tip. The tumor may lie for a long time under the skin and periosteum, without producing any change in the soft parts, if the growth happens to be one not infected. If infected, it will produce periosteal abscess, infiltration of the skin, and fistula. Frequently the tumor breaks through into the middle and posterior fossa of the skull, where it presses the dura and sinus out of the way. If not infected it may press on the contents of the intracranial cavity for a long time without producing symptoms; but if infected it is followed by some intracranial purulent process. The labyrinth and the facial canal may be affected in the same way. The diagnosis of such a tumor is only possible after it has broken through into the tympanum, into the auditory canal, or on the external surface. It is most often seen in the tympanum, sometimes in the auditory canal. It is seen between the granulations and the fetid pus. It looks dirty white, or appears as pearl-like pieces broken off the tumor. These pieces should be easily distinguished from the inspissated pus of chronic inflammation. If these pieces are not found, or if the tumor does not project into the canal, this condition cannot be differentiated before the operation from ordinary chronic otorrhea; and when operating you may find such a cavity from which a tumor may have disappeared.

Rupture in the auditory canal may be followed by healing, and one may find the antrum, tympanum and auditory canal united in one cavity lined with epidermis. If the tumor has no broad way of escape, the danger of rupture into the intracranial cavity is greater than in any other form of purulent disease of the middle-ear and temporal bone. Sinus thrombosis is the most common complication following such a rupture. Some cases are healed by the breaking through into the auditory canal, but most of them should have a radical operation performed as quickly as possible.

Necrosis of the capsule of the cochlea is often found in chronic

otorrhea, usually after scarlet fever. Necrosis of other parts of the temporal bone occur frequently in scarlet fever, but as an acute process. The necrosis here, however, is a chronic process occurring several years after the acute disease. It is due to an acute exacerbation of the old purulent trouble. The signs of it are fetid pus, which is persistent, accompanied by exuberant granulations on the posterior wall of the tympanum, which recur in a few days when removed. When this wall of the tympanum is examined with a sound, roughness of the bone is found. Eventually a movable sequestrum is recognised. This may be removed in many cases through the external auditory canal, but if it cannot be dislodged in this way, a radical operation must be performed in order to remove it.

Technique of the Operation.—The patient should be first prepared for an aseptic operation. The side of the head should be shaven for at least two inches in every direction about the field of operation, and the skin about the auricle for some distance, as well as the auricle itself should be made thoroughly aseptic. The auditory canal must be as thoroughly cleansed as possible. When there is sufficient time this should be done on the previous day, and a moist bichloride dressing should be left on over night. Then the sterilisation of the parts should be repeated before the operation is commenced. When the patient is well under the anesthetic an incision should be made down to the bone, as close to the auricle as possible, from the tip of the mastoid to a point just above the upper attachment of the auricle. Then the periosteum should be shoved back so as to expose the whole cortex of the mastoid. This part of the operation is the same in both Schwartz's operation and in the radical operation. In Schwartz's operation the auditory canal is not interfered with. In the radical operation the lining of the auditory canal is separated from the posterior wall down to the tympanum, from which it is not generally necessary to separate it, for the tympanic membrane is usually destroyed in the class of cases for which this operation is done. Of course all bleeding must be stopped before we go farther with the operation.

We next look for the place above which we dare not remove the bone. This is the linea temporalis, which is the continuation backwards of the upper border of the zygomatic process, and is, at the same time, the upper border of the mastoid fossa, which is the external landmark of the mastoid antrum. Just here, on the edge of the external auditory canal, is the auditory

spine, which was formerly used as the upper border of the field of operation, until the temporal line began to be used in its stead. The upper border of the temporal line is on a level with the lowest part of the middle fossa of the skull, which makes it necessary for us to confine ourselves to the parts below, unless we find later that there is caries of the roof of the antrum, extending to the dura mater. After the auricle is detached by placing the end of the finger in the depression between the temporal line and the posterior margin of the external auditory canal, we cover the mastoid fossa. It is in this that fistulous openings are found, which communicate with the mastoid antrum and through which infection finds its way to the surface, to produce a periosteal abscess when no fistula exists, for this part of the cortex is perforated by several small bloodvessels. After we have satisfied ourselves as to the landmarks, we commence to chisel away the cortex of the mastoid. In acute cases we can often follow a fistulous opening to the antrum, but in chronic cases we are apt to find a great deal of osteosclerosis, which makes the chiseling very difficult. In acute cases we leave the posterior wall of the auditory canal standing, and remove the soft, diseased bone as far as it extends into the mastoid cells; but, in the chronic cases, we remove the posterior walls of the auditory canal while we deepen the opening in the bone in the direction of the mastoid antrum.

The first of these procedures is known as Schwartz's operation, and is the one which is usually done in cases of acute mastoiditis. The latter is known as the radical mastoid operation, Zaufel's or the Stacke-Schwartz operation. By it the antrum, the mastoid cells, the tympanic cavity and the auditory canal are united into one cavity, and all diseased bone, whether in the antrum or tympanum or in their walls is easily found.

Some do the radical operation by first doing a regular Schwartz operation and then removing the posterior wall after they have opened the antrum. In some cases the first stroke of the chisel will expose the sigmoid curve of the transverse sinus. In these cases the sigmoid sinus lies far forward and may be only a couple of mm. from the posterior walls of the external auditory canal.

In these cases it is necessary to do a regular Stacke operation, in which you commence to chisel away the upper and back walls of the external auditory canal, commencing where the tympanum passes into the attic. The parts below are protected

by a curved instrument devised by Stacke for this purpose. The antrum is opened in this way and the bone between this and the cortex of the mastoid is removed as far back, and as thoroughly, as the position of the sigmoid sinus will allow.

In many cases when removing the diseased mastoid cells, the disease of the bone will be found to extend to the sigmoid sinus which may, therefore, be exposed for a considerable distance, for all diseased bone should be thoroughly removed. The sinus may also be accidentally exposed. The sinus wall may be perfectly healthy; it may be bathed in pus, covered with granulations, or itself diseased. Where diseased it may be filled with a thrombus. This thrombus may or may not be infected; it may be solid or broken down with formation of pus. The presence of the infectious thrombus, however, is generally expected before the operation, in which case the patient has had a rigor or repeated rigors, followed by high fever with intervals in which there was no rise of temperature. In these cases there is also pain on pressure and infiltration on the posterior border of the mastoid; symptoms of brain pressure; neuritis optica; stiffness of the neck and, when the thrombus has extended to the internal jugular vein, there is pain and a feeling of resistance in front of the sterno-cleido-mastoid muscle. When the sigmoid sinus contains a thrombus, it should be opened up and the thrombus should be removed.

It is generally a good practice to ligate the internal jugular at the same time. Where the diseased bone extends to the tegmen of the tympanum or antrum, the dura must of necessity be exposed while removing all dead bone. When we reach the dura we may find it perfectly healthy; or, we may find pus with a bolster of granulation tissue between the bone and the dura. This constitutes an extra-dural abscess. All bone covering this bolster should be removed until we come to normal dura, then the bolster should be removed. The dura should be thoroughly examined for evidence of disease or fistulous openings. Should no such be found, or should there be no symptoms pointing to abscess of the brain, it is not necessary at this time to carry the operation further. Should there, however, be symptoms pointing to abscess of the brain, the external cut should be carried forward above the auricle, and the opening through the tegmen should be enlarged until the brain is exposed at the side through the squamous portion of the temporal bone. This enlargement should be made with strong for-

ceps in preference to the chisel. Should a fistulous opening be found over the tegmen, the abscess may be evacuated without enlarging the opening in the bone; otherwise it is better to expose the brain at the side and make incisions into its substance a couple of cm. deep until the brain abscess is discovered, when the opening to it is enlarged and drained. When doing the radical operation, beside the sigmoid sinus and the dura, we have to look out for the semicircular canal on the floor of the antrum and the facial nerve, where it passes along the posterior and inferior border of the auditory canal.

In removing this part of the wall between the auditory canal and the mastoid cells, an assistant should be directed to watch for twitching of the facial muscles. Sometimes, of course, there is already paralysis of the facial nerve, and it may be necessary to remove carious bone extending to the sheath of this nerve. After completing the operation, every vestige of granulation tissue and diseased bone should be removed from the antrum and the tympanum. In this way it is often necessary to remove the cochlea which has become carious. Of course, any remains of the tympanic membrane or diseased hammer or incus should be removed. The stapes should be left in position, for it prevents spread of the disease from the tympanum into the labyrinth.

The operation is now completed by doing one of two kinds of plastic operations. When there has been disease of the external tissues, or where we have operated for cholesteatoma, true or false, it is better to defer the plastic operation for a week or more. I prefer to do the plastic operation known as Stacke's. The other operation is the one recommended by Korner, and which is also done by Jansen, of Berlin. Stacke's operation is the one which is done in Leucæ's clinic. In the Stacke operation a flap is made of the posterior cutaneous wall, by separating it from the auricle by an incision where it is attached to this organ, and a second incision at right angles to this, along the posterior superior border of the canal. This flap is laid in the inferior portion of the bony cavity, and the dressings hold it in this position.

Some prefer, as Jansen, for instance, to close up the cutaneous wound and do all the dressing through the external auditory opening, while others prefer to let the external opening close up of itself. After it is closed the dressings are also inserted through the external auditory opening. To further this external healing, while we pack the lower part of the wound, gently

but firmly, in every direction, to prevent exuberant granulations, we insert the dressings very loosely as we approach the external wound. In this way the opposing surfaces of the skin approach each other very rapidly, so that we are compelled, in a very short time, to do all our dressing through the auditory opening.

Throughout the operation no solutions are used, and blood and secretions are removed by means of sterile gauze sponges. The wound is packed with iodoform gauze; the side of the head is covered with sterile gauze, a sterile bandage is applied, and the patient, unless bad symptoms occur, is allowed to go without dressing of the wound for from five to eight days. Then the wound is dressed in this way at short intervals until the external wound closes, and until the whole posterior cavity is covered with a healthy epidermis, which will take from three to four months. After this, if all diseased bone has been removed, you are not likely to be troubled with anything more than occasional granulations, which can easily be destroyed with chromic acid. There may be at times a discharge of mucus from the Eustachian tube into the cavity, which has taken the place of the external auditory canal.

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The Treatment of Rotary Lateral Curvature of the Spine.¹

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THE marked improvement in the methods of diagnosing and treating disease during the latter part of the last century has largely been due to a better understanding of etiology and pathology, an illustration of cause and effect. Laboratory research has sharpened clinical observation and as medicine becomes daily more scientific, our patients receive the benefits of the practical results. Although lateral curvature of the spine is not a disease, it is a matter of serious import to one suffering from this deformity. The great frequency of curvature, it being present in over 1 per cent. of growing children, according to Drachmann, and the probability of increase of distortion, warrant the investigation of its etiology and pathology with the aim of improving the methods of treatment.

During the past twenty-five years this branch of orthopedic surgery has received considerable attention and this paper has

1. Read before the Buffalo Academy of Medicine, Section on Surgery, April 28, 1902.

for its object the outlining of the treatment as it exists today in contradistinction to the obsolete methods formerly in vogue. That the prognosis has changed may be seen from the figures of Schulthess,¹ who has recently recorded a high percentage of favorable results—92.9 per cent of his cases out of a total number of 618 patients.

Before entering on the discussion of treatment a few words as to the method of examination for determining the kind of



Fig. I., Case I.—Lateral deviation of the spinous processes and rotation of the vertebrae. See fig. II. and III.



Fig. II., Case I.—Same patient as in fig. I. after nine months' of treatment by exercises and correction in the machine.

curve present, and as to the best means of recording progress in the case are indispensable, as these matters bear directly on the subject. The patient must be stripped to the waist and must stand with the clothes lowered until the entire lumbar region and the crests of the ilia are bare. Inspection of the back in good light detects readily a projection of one hip or of one shoulder, a lack of symmetry in the position of the scapulæ or a general inclination of the trunk to one side, one arm perhaps resting against the hip while the other swings clear of the body, as in fig. I.

The finger tracing over the tips of the spinous processes from cervical region to sacrum will find lateral deviation from the middle line of the body, if present. As the patient bends forward from the hips, holding the spine steady, the profile of the ribs comes into view, as in fig. VIII., and this position is the best for detecting rotation of the vertebræ which inevitably causes a prominence of the ribs on one side and a sinking on the other. Rotation, even to a slight extent in this horizontal position means a fixed curve, *i. e.*, one in which structural changes exist.

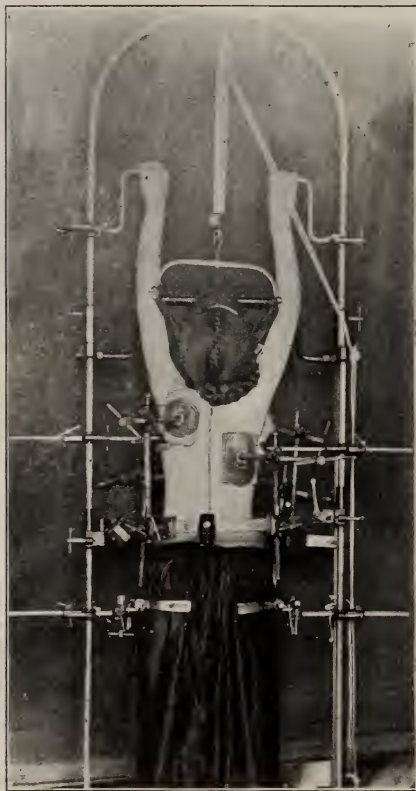


Fig. III., Case I.—Same patient showing correction obtained in the pressure machine.

Testing the mobility of the different sections of the spine is next in order. By placing successively one or two thin books under one foot as the patient stands with extended knees, we tilt one side of the pelvis upward and produce a compensatory curve in the lumbar region. If lumbar curvature is present with convexity to the left, raising the pelvis by a book under the left foot will diminish the curve, but a book under the right foot will increase it. If a lumbar curve can be corrected or overcorrected by this means it is a

flexible curve.

To test the motions of the dorsal spine the patient must clasp the hands high above the head and bend forward, backward, and to the right and left sides while the pelvis is steadied by the examiner. The patient should try to make the bend as high up as possible, not in the lower lumbar region. Inspection of the back during these movements gives information as to the charac-

ter of the curvature. If stiffness and slight changes only in contour follow these efforts, it is positive that changes in the bones, ligaments and muscles have occurred, a condition calling for special treatment. A normal child can clasp the hands high above the head without increase of the normal lumbar lordosis; a round-shouldered child cannot. Another means of testing mobility is to draw the patient up in a Sayre's suspension apparatus, or in lieu of this to have an assistant place the palms of his hands under chin and occiput and draw the patient up from a sitting posture. The spine will then straighten as much as its conformation will permit. Hanging by the hands is an inferior test, because of the attachments of the scapular muscles to the spinous processes of the vertebræ. A final test of mobility is to place the patient in the pressure machine (see fig. III.), to discover to what degree direct force will overcome the deformity. Experiments have proved that the spine is governed by the same laws as flat, flexible rods, and that neither lateral deviation nor rotation can exist to any degree alone. Each is part of one compound movement.

Henry J. Bigelow summed up the matter thus in the Boylston prize essay for 1844:

The principle of torsion is illustrated by bending a flat blade of grass or a flat, flexible stick in the direction of its width. The center immediately rotates upon its longitudinal axis to bend flatwise in the direction of its thickness. In the same way the spine, laterally flexed, turns upon its vertical axis to yield in its shortest or antero-posterior diameter.

A graphic method of recording cases is essential. Hence photographs, although open to objections, are largely used. Two photographs of each case at the beginning of the treatment should be taken, one in the upright position to indicate lateral deviation of the spinous processes, and one of the patient bending forward to indicate rotation of the vertebræ with distortion of the ribs. Another graphic method is to mold transversely across the back of the recumbent patient a thin strip of sheet lead, the center of the strip overlying a certain spinous process. The lead is removed, placed upon paper and the outline drawn by a pencil, the lead acting as a ruler. Another tracing is secured at another point and so on. Months later this can be repeated and changes in the contour of the back are shown by the variations in the curves on the paper.

Weigel has invented an apparatus which reproduces exactly the outline of the back. It should be a matter of routine to measure the length of the legs of each case and if unequal, to alter the thickness of the soles of the shoes. A record should be kept of the height and weight, the expansion of the chest, and the circumference of the forearm, arm and leg, because a marked increase in all these measurements follows the gymnastic work. A spring balance fastened to the wall may be made to measure the strength of individual sets of muscles. A general examination of the heart, lungs and other organs must precede exercises and forcible correction in order that latent disease may not be aggravated. The writer has seen cases of endocarditis and suspected tuberculosis in which active measures were contra-indicated.

Preventive Treatment.—Just as modern methods of treating disease are dealing more and more with prophylaxis, so in lateral curvature preventive treatment is becoming of great importance and is directed chiefly at regulating the posture of school children and providing for them suitable seats and desks, such as are described by Staffel.² Improper attitudes, standing frequently on one foot, writing in a twisted position, and sitting with the spine flexed will eventually produce distortion in pupils in whom there exists that predisposing cause of curvature, *i. e.*, inherent weakness and predisposition to deformity, or in other words, “lessened resistance to unfavorable conditions.” As curvature almost always begins while the spine is in flexion, calisthenics, including exercises for extending the spine are of great service. Physicians should be careful to examine the back of any child concerning whom the mother speaks of a projecting hip or shoulder, or says, “she is getting one-sided.” Corsets and articles of clothing that constrict the trunk are to be avoided.

It has been proven that it is weight obliquely applied to the spine that causes rotation and lateral deviation.³ Weight equally applied causes antero-posterior bending only. Inquiring as to what may cause the superincumbent weight of the head and shoulders to fall obliquely we come to the question of asymmetry of the body. Everyone knows of the asymmetry

found in nature in all living beings and in corresponding parts of the same body. In the human race asymmetrical position of the head from ocular defects has caused curvature; also asymmetry of the pelvis, first described by Barwell, and unequal thickness of the vertebræ found by Schulthess.

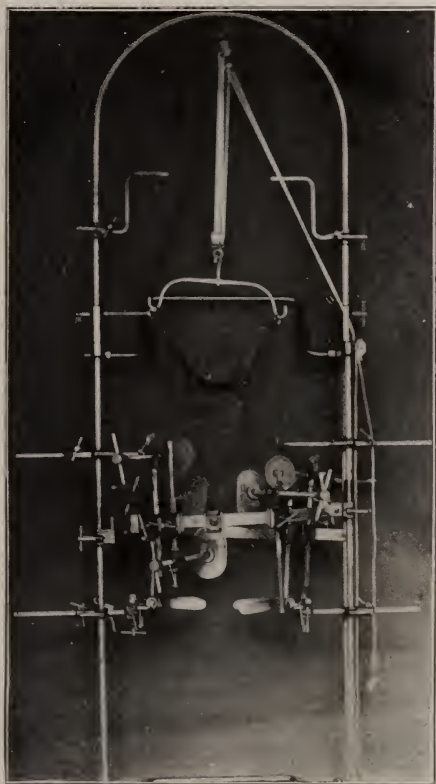


Fig. IV.—The screw pressure machine, described under treatment, section 4.

It is, however, to asymmetry of the legs that the writer would call special attention, a feature not emphasised as it deserves to be. Bradford and Lovett very truly remark that deformity from this cause is not invariable, but when present it should be corrected. The following table from their surgery gives an idea as to the frequency:

Number of cases examined.	
21	
230	
30	
Total . .	281
Number of cases showing unequal length of the lower extremities.	
17	
62	
28	
Total . .	107

In January, 1902, a lady, aged 30, was referred to the writer. She suffered from an S-shaped scoliosis of long duration, which had been treated by leather jackets and electricity for several years without improvement. One surgeon had informed her that a slow-growing tumor was present in the left lumbar region.

There was evident on examination a marked rotation of the lumbar vertebræ without much lateral deviation (a condition recalling the famous case of the physician reported by Adams in 1882, in whose back a tumor which was pronounced a cold abscess by the ablest surgeon in England, proved at autopsy to be the transverse processes of the lumbar vertebræ, rotated backward on the left side.) On raising the patient in the Sayre's suspension the spine straightened and the tumor vanished instantly, returning as the feet again supported the weight of the body. As she sat down it was noted that the curvature almost disappeared, hence she was asked to stand with the left foot on a book, and it was soon evident that a book three quarters of an inch in diameter completely corrected the deformity. Measuring from the anterior spine to the inner malleoli, the length of the right leg was found to be $32\frac{1}{2}$ inches, the left, $31\frac{3}{4}$. Questioning elicited the fact that in her 17th year she had had an attack of "brain fever" and ever since then "the left foot had not come down so solidly as the right." She was told to have the sole of the left shoe increased and at her next visit correction was evident, and she stated that her clothes fitted perfectly over her hips. Patients particular about their appearance may have the inner sole alone thickened.

John Hilton⁴ in his famous "Rest and Pain," details his experiences in these words:

I may add that I have seen so many of these cases, that I am persuaded that they occur not infrequently, and that they are usually overlooked. Thus I have seen many patients wearing spinal supports, in order to correct a lateral curvature, when the deformity might have, and has been subsequently, corrected by placing within the shoe or boot a piece of cork thick enough to compensate for the shortness of the less developed limb.

This is undoubtedly an exaggerated view but the fact remains that it is important to recognise and correct this asymmetry in the small number of cases in which it is present.

Treatment.—The following means present themselves for consideration, one combination being adapted to one case, another for another case: (1) Recumbency and suspension in the Sayre's apparatus; (2) special gymnastics; (3) support by corrective jackets; (4) forcible correction by the pressure machine; (5) electricity, massage and general treatment.

1. Recumbency was the chief and almost the sole agent in the hands of the older surgeons, and Adams cites many cases in

which it did great harm, the patients having remained in bed indefinitely waiting for nature to correct the deformity. Recumbency is valuable, however, as an adjunct. Until a patient has become so strengthened by exercises that she can voluntarily hold her corrected position all day, she should have ten hours' rest at night and an interval of rest on the sofa after each midday meal. For a very young child with a rachitic curve, recumbency, manual correction, massage and feeding form the essentials of treatment.



Fig. v., Case II.--A mild grade of deformity producing unequal shoulders and hips.

Suspension in the Sayre's apparatus once or twice daily may be employed, the weight of the body tending to correct the deformity. In the case of rigid curves the force is ineffective and direct pressure in the machine is necessary to restore free passive motion.

2. In a previous article⁵ the writer has dealt with the question of medical gymnastics and has mentioned the fact that the exercises must be ordered to suit each individual case as no two cases are exactly alike. Gymnastics alone suffice to cure the great majority of curvatures that are flexible, and they enable patients to retain whatever improvement in flexibility results from forcible correction in the pressure machine. Patience and perseverance are essential and although many require but three

to six months of work a much longer time may be indicated. It is important to give not only special exercises directed at the spine, but a certain amount of general calisthenics to improve muscular tone (Teschner.) Ordinarily, flexion of a distorted spine increases the deformity, hence the value of such motions as will hyperextend the spine, as Lovett has pointed out.⁶ Exceptional cases, however, which follow Whitman's second type⁷, where the curve has originated in the lumbar region flat-

tening the normal lumbar lordosis and producing a compensatory curve in the dorsal region with flattening of the normal dorsal kyphosis, should avoid hyperextension. Case 4 (see fig. 7) illustrates this very well and her exercises were beneficial when the spine was maintained slightly flexed.

3. When the plaster-of-Paris jacket was introduced for the treatment of Pott's disease it also was heralded as an efficient method of overcoming lateral curvature, but disappointment ensued.

In Pott's disease it is serviceable because it prevents increase of deformity and affords rest to the spine while nature cures the diseased process by ankylosis. In lateral curvature the spine is held in its distorted position by a jacket, the muscles and ligaments become structurally shortened and the muscles waste for want of exercise. The poor results obtained have led to a change in treatment and these jackets are now of service in selected cases only. In paralytic patients firm support is of course essential (see case 6). The experiments of Wullstein, who produced lateral curvature in young dogs by holding them in plaster-of-Paris in deformed positions for months would seem to justify the treatment employed by some orthopedists who apply jackets to *young* children in the recumbent position, whose curvatures are held corrected by apparatus during the hardening of the plaster. A few months later a new jacket is applied and additional correction is obtained, the spine meanwhile growing in its new position.

The use of corrective jackets during a portion of each day depends on another principle, *i. e.*, to act as a temporary support until exercises have strengthened the muscles and to suggest constantly to the patient the necessity of voluntary effort to obtain the "key-note" position. They favor also adaptive changes in the bones while growth progresses. At the outset of treatment for a weak patient with a rigid curve, the writer usually makes a plaster-of-Paris form, then a solid cast of plaster, and having corrected the cast until the two sides are symmetrical, molds a leather jacket which conforms to the cast. This is worn by the patient a portion of each day only until she has learned to hold her keynote position, and has developed some power in the spinal muscles. That the jacket applies its corrective force exactly is shown on removal of the same by the reddening of the skin over the convexity and the paleness of the skin over the concavity of the ribs. The wearing of corrective

jackets for selected cases as an adjunct to other treatment meets the approbation of orthopedists at the present time.

4. The use of force, skilfully applied, is not only a great aid to the surgeon at the beginning of treatment of certain conditions but oftentimes an absolute necessity. For example, one cannot hope to cure a rigid flat-foot, a falsely ankylosed joint, or a wrist stiffened by a previous Colles's fracture without using force until resistance to passive motion is entirely overcome.



Fig. VI., Case III.—A severer type with beginning rigidity and bony changes.

Free passive motion having been provided, mild therapeutic measures insure recovery. When a rigid and distorted spine is presented for consideration we have the same indications to meet—the resistance to passive motion must be overcome or improvement is impossible. The problem is difficult to solve owing to the complex nature of the parts and the motions involved. It must be admitted that the treatment of rigid lateral curvature is necessarily unsatisfactory, and that just so far as any case has developed changes in the bones, ligaments, cartilages and muscles, just so far will treatment be ineffective in correcting the deformity. In other words, improvement but not cure must be expected in proportion to the age of the patient and the degree

of structural alterations. A girl 14 years old with a medium grade of distortion can be far more successfully cared for than a girl of 18, with a severe and old deformity. Many simple devices have been used for the forcible correction of curvatures and the restoration of free motion, but the objections to them are that they do not fulfil the requirements. The screw pressure machine, used by the writer, as seen in figure 3, meets the indications as scientifically as possible and it really accomplishes what the inventors claimed it should. The photograph describes it better than words. Its principle depends on the fact, proved

by experiments on models and cadaver, that oblique pressure on the ribs causes rotation of the vertebræ and produces lateral deviation of the spinous processes when the cervical and sacral regions are held motionless.* The machine has been extensively improved by Weigel, of Rochester.⁸ It was introduced in its original form by Schede, of Hamburg, and Hoffa, and modified by Bradford and Brackett, of Boston. It consists of a large steel frame with adjustable attachments for the head, hands, pelvis and trunk. The rear horizontal semi-circular bar is swung backward, the patient steps to the center between the uprights and the bar is swung to and fastened. The head piece is adjusted and the patient raised on tiptoe, thus removing the weight of the head and producing traction upward. The hands aid in this by clasping the short bars above the head. The pelvic attachments immobilise the pelvis and may be swung on a vertical pivot to untwist a lumbar curve. The side bar is pushed inward to the left axilla and screwed tight, thus fixing the upper dorsal region. The various padded pressure plates are now brought into contact with the body, one of large size over the projecting ribs posteriorly opposite the apex of the curve where the greatest pressure is to be made, and another diagonally opposite, below the left breast. One is brought to bear under the right breast, one against the front of the right shoulder and one against the left shoulder posteriorly. Additional pads may be placed against the sternum and against the transverse processes on the convexity of a lumbar curve, if it is present.

The chest is now held firmly at every point except at the concavity of the dorsal curve where the ribs are depressed. As the screw is turned and the pressure increased on the convexity, the ribs yield on the opposite side and begin to bulge while the spinous processes approach a straight line. The screw is turned and the correction increased until the patient is rendered uncomfortable. The patient returns daily at first, later three times weekly for a twenty-minute correction, until flexibility has returned and the patient can in her exercises straighten the spine to the same extent as the machine.

This pressure machine is adapted for patients of all ages. It may be adjusted to a case in about three minutes and the patient may be removed in a few seconds. The pressure is uncomfortable, but never needs to be painful. Without this forcible correction the rigidity will not yield and no improvement can be looked for. Manual correction and simple pressure without

correct counter-pressure in front allows the force to be dissipated and the whole stiff segment of the spine is thrust sideways as a unit. In the machine the pressure is followed up and the force is applied to the deformity itself. It is necessary for one to have practical experience for some time in the use of the machine to learn minor details and to become accustomed to the needs of different patients.

Under the heading of forcible correction a few words must not



Fig. VII., Case IV.—Showing structural changes with considerable rigidity of the spine.

be omitted on a new use of the plaster-of-Paris jacket for fixed curves devised by Lovett.⁹ He places the patient face downward on a modified Bradford frame with the thighs at right angles to the pelvis. This position flattens the lumbar curve which in turn will flatten the dorsal curve.

The spine thus hyperextended and partially corrected is straightened further by bandaging the trunk to the sides of the frame, one bandage pul-

ling on the convexity of the dorsal curve and the other on the convexity of the lumbar curve. The trunk is now encased in plaster. At the end of five days the jacket is removed and another applied in the same way exercising more force. Several jackets are thus rapidly worn and discarded, and then the patient is treated by exercises. Lovett claims that correction proceeds at a rapid pace by means of this preliminary use of jackets. He found that in the earlier jackets it was very easy to obtain an unbearable amount of corrective force, and that the

patients must become accustomed to a gradual increase of pressure.

5. Daily applications of faradic electricity to the muscles of the back may be given in addition to other means. When the deformity is due to anterior poliomyelitis, the weakened muscles are on the convex side and the electricity must be applied to them. Massage of the back after exercises is grateful to the patient and sea salt rubs in the morning are refreshing. The surgeon must be careful that the treatment is not overdone to the detriment of the general health of the patient and rest must be ordered after any temporary illness. The condition of the

vital organs should be examined at intervals by the family physician.

Curvatures due to empyema, sciatica and lesions of the spinal cord must be treated according to indications. When the lumbar region is chiefly at fault, partial correction can be obtained by thickening the sole of the shoe on the convex side and by the use of an inclined seat. Tenotomy of one or more muscles of the back as performed so energetically by Guérin, of France, and later by Sayre, has been entirely discontinued and finds no place in modern text-



Fig. VIII., Case v.—The profile of the ribs indicates very marked rotation and rigidity.

books. Hopelessly deformed patients may be relieved by mechanical support, massage and electricity. If great pain is caused by overlapping ribs in extreme cases resection of one rib is a simple expedient, as performed by Goldthwait and Painter, of Boston.¹⁰ It may be repeated, in conclusion, that each patient deserves special study and for each there must be ordered that combination in treatment best suited to the individual case.

The writer has selected the following to illustrate different types of the same deformity:

Case I.—(Figs. I., II. and III.) aged 15. This patient entered the Children's Hospital in July, 1901, a flabby, weak, overgrown girl with a long dorsal curve and slight lumbar curve shown in fig. I. Rigidity was marked. Nine months later, while still under treatment, she was photographed again and the result appears in fig. II. To meet the objection that the improvement is only apparent, it may be said that on each occasion the girl was asked to hold herself straight as she would naturally while standing. One must see a case exercise to obtain an accurate idea of the result of treatment. She was a very unpromising patient at first and frequently became faint or vomited during her gymnastics. Her general health is now excellent and she has discarded her corrective jacket, but exercises daily and is stretched in the machine once a week. The same patient is seen in the machine in fig. III., and the line over the spinous processes was drawn after correction had been obtained.



Fig. IX., Case VI.—Scoliosis due to paralysis of the back muscles in a case of Friedreich's ataxia.

Case II.—(fig. v.) aged 16; referred by Dr. F. A. Drake, of Buffalo. A typical example of a mild flexible deformity with a prominent hip which called the attention of the mother to the back. The right leg was found to be three-eighths of an inch shorter than the left and a thickened sole aided considerably in correcting the curvature. As an example of what gymnastics will do in seven weeks, the following comparisons are given:

	Measurements January 20.	Measurements March 14.
Chest at expiration	25 $\frac{1}{4}$ inches.	26 $\frac{1}{4}$ inches.
Chest at inspiration	27 $\frac{1}{4}$ "	29 $\frac{1}{4}$ "
Forearm	7 $\frac{7}{8}$ "	8 $\frac{1}{2}$ "
Arm	8 $\frac{1}{4}$ "	8 $\frac{3}{8}$ "
Calf	12 $\frac{1}{8}$ "	13 "

Case III.—(fig. VI.) Aged 13, entered the hospital in September, 1901. One sister suffered from a severe type of lateral curvature. Bony changes and a beginning rigidity neces-

sitated machine treatment in addition to exercise. Complete cure will be obtained in her case.

Case IV.—(fig. VII.) aged 16, referred by Dr. De Witt Hitchcock, of Oxford, Chenango County, N. Y. A very tall, thin girl with flattening of the normal physiological curves. A higher grade of deformity is evident and a complete correction is impossible. Considerable progress, however, has already been made in improving the flexibility of the spine.

Case V.—(fig. VIII.) A deaf mute, aged 15, referred by Dr. T. F. Dwyer, of Buffalo. The photograph was taken of the profile of the ribs to show the very marked rotation and rigidity continuing in the horizontal position. The worst deformities occur often in males, and this case is an example of what neglect of parents may cause.

Case VI.—(fig. IX.) Aged 18, an inmate of the Erie County Hospital. An illustration of a marked scoliosis, due to Friedreich's ataxia. One sister and one brother suffer from the complaint. At the age of 14, weakness of the lower extremities developed and gradually all of the typical symptoms appeared. Paralysis of the lower extremities is nearly complete, but the arms still retain some power. Weakness of the back muscles has caused the curve seen in the illustration. Atrophy of the muscles and marked incoördination are evident. The knee-jerks are absent and the sphincters unaffected. Nystagmus can usually be elicited. Sensation is inaccurate and delayed, response following an interval of about three seconds. The pupils are normal and instead of explosive speech articulation is hoarse and slow. Support is provided for by jackets.

BIBLIOGRAPHY.

1. Zeitschrift f. Orthopaed Chirurgie. Vol. 9, No. 3.
Quoted by Phil. Med. Jour., March 15, 1902.
2. Orthopedic Surgery. Bradford and Lovett, p. 120.
3. Ibid. p. 97.
4. Hilton. "Rest and Pain," p. 240. Wood & Co. 1879.
5. Le Breton. Corrective Exercises for a Case of Lateral Curvature of the Spine. American Medicine, Feb. 1, 1902.
6. Lovett. Boston Med. and Surg. Jour., June 14, 1900.
7. Whitman. Orthopedic Surgery, p. 125.
8. Weigel. The Rational Treatment of Lateral Curvature of the Spine. Journal of Physical Therapeutics, Oct., 1901.
9. Lovett. Boston Med. and Surg. Jour., Oct. 31, 1901.
10. Painter. Phil. Med. Jour., Dec. 14, 1901.

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KEEN (*American Journal of the Medical Sciences*, July, 1901.) in an article describing several operations for traumatic epilepsy in which he injured the lateral sinus, comments on the apparent harmlessness of the accident. No untoward results were noticed in any of the cases in which it occurred. He operated on one case in which a piece of bone embedded in the cerebral substance had escaped detection.

Pruritus Ani.¹

By GEORGE L. BROWN, M. D., Buffalo, N. Y.

THIS condition presents more difficulties of diagnosis, more complications and combination of symptoms, than almost any of the diseases of the anal region. It is one of the most obstinate, annoying, vexatious and loathsome complaints known to suffering humanity; it affects both sexes, and all classes and conditions alike, the rich and the poor, the illy nourished and the overfed, the sedentary professional man, and the toiling day-laborer, the woman of society, and the woman who earns her livelihood over the washtub. No age or position is exempt from its infliction, or secure from its tortures. It is not an idiopathic disease, but always a symptomatic affection. In many cases its pathology and causation are very obscure. Ordinary, well-defined cases are recognised without difficulty, there being certain symptoms common to each; it is the obscure and complicated conditions that occasion mistakes of diagnosis.

The earlier manifestations are usually of a trivial character. The first noticeable indication of its presence is an itching sensation, on or about the verge of the anus, which is found to be more pronounced at night, especially after the patient becomes warm in bed. The itching comes on so gradually and insidiously, that the sufferer gives but little attention to it, but in time becomes so vexatious and unbearable that the patient contracts the habit of scratching the affected parts, in vain effort to obtain relief, which habit grows more confirmed and annoying the further the case progresses, and is frequently practised unconsciously during sleep. This intolerable itching, which is the characteristic feature of pruritus ani and is the burden of the patient's complaints, is one of the most intractable of the rectal troubles, especially so when the cause is not apparent, or readily discovered, as is many times the case. The actual pain experienced is not severe, but the itching is less easily endured, and, together with inability to secure refreshing and restful sleep for nights in succession, the nerves and moral stamina of the sufferer are worn down, so that in frequent cases life becomes such a burden that the victim becomes moody, melancholy and despondent, and contemplates suicide as the only sure and certain relief. The itching gradually spreads about the surrounding parts of the anal verge, extending up

1. Read before the Buffalo Academy of Medicine, Section on Surgery, April 28, 1902.

the rectum, over the integument of the buttocks, scrotum, vulva, perineum, and to more remote parts of the body, such as the nose, ears and eyelids, and in fact wherever the sufferer has carried the germ or exudation with the hands or fingernails.

This affection is irregularly paroxysmal, and in the intervals there is no itching or other disturbance. In advanced cases certain morbid changes occur around the rectal orifice, in consequence of the patient's strenuous efforts to relieve the intolerable itching, which, while giving momentary relief, excoriates the naturally thin skin, exaggerates the secretions of the parts, and if the irritation continues, fissures and even ulcerations are formed. Vesicles appear which discharge an irritating sanies, that sometimes removes the cuticle and leaves the parts raw and bleeding, at other times smooth, glassy and shining, frequently bleaching the skin white.

The causes of this distressing ailment are many and varied, among which are proctitis, the overstretching of the anal orifice in the forcible discharge of costive stools, although the itching may not manifest itself for some time; pocket piles—papulæ—polypi on the walls of the rectum and bowel, ulcers and fissures, irritable pile tumors, all forms of hemorrhoids, inverted or ingrowing skin or hairs in the rectum; all kinds of ascarides, eczema, erythema, herpes, pityriasis, acnæ, lichen, prurigo, urticaria, verucca, tinea, pediculosis pubis, sexual irregularities, tuberculous conditions, venereal diseases, the various uterine and ovarian troubles to which woman is heir; also some lesions of the sensory fibers surrounding the verge of the anus, and disease of the spinal cord or brain.

Among causes not generally recognised as such are rectal inflammations, intestinal autointoxication, masturbational neuroses, dry scybalæ adhering to the lining of the bowel, imtemperate use of malt liquors, irritating secretions, caused by improper food, or by some diseased organ of nutrition, which does not perform its function in proper manner. Other causes are sitting upon cold or damp ground, wood, stone or metal, the use of leather covered or upholstered seats, and improper materials for toilet purposes, especially paper containing printer's ink, the habit of sitting upon a closet for a longer time than is absolutely necessary for the purposes of defecation, the use of highly spiced foods, imperfect mastication, the insufficient supply of water for the wants of the system and eating at irregular intervals.

Proctitis—by far the most prolific cause of pruritus ani—is produced by use of drastic cathartics, septic infection, or to a specific poison, such as dysentery, gonorrhea, syphilis, tuberculosis or cancer. It is brought on by the use of improper articles of diet, neglect of proper attention to the wants of nature, thereby inciting constipation, obstipation and impacted feces, which result in inflammation and ulceration extending into the surrounding tissue, and this tissue becoming infiltrated, breaks down into abscesses containing fetid pus, which communicates with burrowing sinuses and fistulous tracts, leading into the surrounding parts, forming blind pouches and sacciform enlargement about the rectum.

Periproctitis may exist without any antecedent rectal ulceration, especially in connection with the above diseases. This inflammation comes on so insidiously and gradually, as frequently to assume a chronic form, without the person afflicted having any knowledge of its presence, until the severe pruritus ani becomes so troublesome and continuous, that the services of a physician are deemed necessary and the true cause determined.

When an examination exposes blind internal fistulous tracts, ending in rugæ and indurated tabs about the anus, we find that upon removal of the investing cuticle, cavities containing polypi, and prong-shaped growths, with fork or thorn-like points,—conditions that are accountable for a great deal of the itching,—the itching ceases.

Rectitis, the result of costive stools and the consequent strain upon the muscles in their forcible evacuation, is accountable for many of the troubles of this nature, among which are what are known as pocket-piles. They are the sacs discovered by Dr. Horner and have been named *sacculi Horneri*. These sacs, pouches or pockets, catch small particles of fecal matter and foreign substances, such as seeds, cherry pits, nail heads, spiculæ of bone, toothpicks, etc., which cause congestion and frequently ulceration. They appear to discharge at irregular intervals a glairy fluid and while discharging, the itching, burning and gnawing become more pronounced and aggravated. This discharge in some cases is of a very offensive character, even when the most scrupulous cleanliness is observed. Gonorrhea is one great cause, and is the origin of the most annoying and perplexing complications of pruritus ani with which the physician has to contend. It may follow the actual spread of the gonorrheal virus into the rectum, producing rectitis, or

from the sympathetic irritation of the rectum, perineum or urethra, and, as a result, we find pruritus ani.

Pruritus ani is in some instances an attendant symptom of Bright's disease, diabetes, cancer, gout, jaundice and diseases of the liver. We recall an aggravated case where the sufferer from the intolerable itching was on the verge of insanity. Examination disclosed the presence of a tape-worm, and with its expulsion, the itching and all the unpleasant accompanying symptoms disappeared.

So much obscurity exists in regard to the initial symptoms, and so much variation in the behavior of cases, that our diagnoses must be largely conjectural, therefore no well defined course of treatment can be laid down.

The first object is to at once alleviate the distress of the unfortunate sufferer; and much can be done toward that end. Unfortunately, we possess no specific for this complaint and the treatment must be symptomatic. Many cases prove so obstinate as to be almost or quite incurable. The utmost patience is required of the sufferer to second the intelligent direction of the physician, who will find necessary the most careful study and attention to ascertain and remove the cause.

The long-continued want of refreshing sleep and the depressing effects upon the mind of the patient, arising from the incessant itching, pricking, burning and needle-piercing sensations (as they are variously described by different sufferers) have a tendency to and do impair the general health, lower the capacity for repair of the vital powers, and dull and debase the moral sense.

Among the evil consequences that sometimes arise and at which we can merely point, is the habit of masturbation, as the constant scratching and rubbing the parts produce an orgasm. Other sequelæ will suggest themselves to the experienced practitioner. Many patients will change from one physician to another, and failing to realise as prompt relief as they think they should, change again to become again discouraged, without giving any one physician time and opportunity to effect a cure. Such cases are many and difficult of treatment. They have tried this doctor and that doctor, who gave this and that remedy, which did them no good, and they know that this and that is not applicable to their case. Through advice of well-meaning but ignorant friends they have tried nearly all the remedies known to the pharmacopeia and many not known, from herbs and

roots to christian science, and found all of no avail. These patients are not desirable, but such cases call for study and research and invite the best efforts of the intelligent and conscientious physician. The confidence of the patient must be secured and respected; the cause of the trouble must be discovered as early as possible and efforts toward its removal at once instituted.

Palliative remedies must be employed as occasion requires, the general health of the patient improved by administration of proper tonics, the patient must be brought to understand that a cure can only be effected by great exercise of patience on his own part, and faithful adherence to the instructions of his medical adviser. Excesses of all kinds must be avoided, the necessity of cleanliness, of moderate exercise in the open air, and employment to occupy the mind must be insisted upon. Habits and foods likely to produce disturbance or injury to the lower part of the intestinal canal must be avoided.

The infinite variety of complications existing with pruritus ani, and the multitude of palliative and remedial agents at our command in dealing with its combinations, prevent my giving in detail the treatment of all the affections which give rise to its presence, but I will confine myself to some of the procedures employed as the result of my own experience.

The first and greatest agent in all cases is cleanliness. Probably no one measure is productive of as prompt though temporary relief, as the application to the itching surfaces of water as hot as can be borne. A wide choice of palliatives is within our reach for such purposes, among which are Fuller's earth, sulphur, starch, zinc oxide, bismuth, chalk, magnesia, camphor, ichthyol, mercury in its various forms, campho-phenique, carbolic acid, salicylic acid, listerine, glycerin, alcohol, hydrastis, Pond's extract, opium preparations, orthoform, cocaine and eucaine, which may be applied as the conditions of the case call for, and the occasion may demand. These articles should be combined with a base of petrolatum, or other bland media, carefully avoiding the use of everything of an oily or greasy nature. In cases of proctitis, arising from whatever cause, we should make frequent applications to the inflamed and congested surfaces of glycerole of tannin, thiol, and astringents, and direct the use by enema of one or two drams of raw linseed oil, or a weak solution of zinci acetatis or boracic acid twice daily, with instructions to retain the same, or the introduction of sup-

positories composed of hydrastis, belladonna with cocoa butter, or soothing alteratives, together with the internal administration of tonics.

In cases of proctitis with gonorrheal complications, we find balsam copaibæ to be the sovereign remedy, which may be administered by mouth or rectum. Chian or spirits of turpentine, cubebæ, ichthyol, saw palmetto, santal oil, sulphoichthyoate of ammonia, are also remedies of great importance. All papulæ, polypi, excrescences, inverted hairs and ingrowing skin, must be removed. Venereal diseases will require constitutional treatment. Tuberculous sores demand supporting measures, with applications of astringent, antiseptic and stimulating lotions. The radical extirpation of hemorrhoids by dissection, ligation, excision, clamp and actual cautery, or Whitehead's operation is not successful in every case. To obtain satisfactory results, cases must be selected and certain conditions avoided and recommended to palliative treatment.

Such patients as decline to submit to the knife or anesthetics, the senile and the debilitated, and those of a hemorrhagic condition, are susceptible of cure by the application of remedies frequently applied to the diseased tissues, and the use of hypodermic injections. But most physicians in active practice have not the time and patience necessary to devote to those sufferers. When the itching arises from a neurotic condition, or from a diseased condition of the brain, spinal cord or their coverings, bromides, hypnotics and tonics may be prescribed, as the exigencies of the case demand and the indications suggest. Cancer in all its forms must be extirpated and should the radical operation for its removal be unavailable or inoperative, the permanent relief of pruritus ani will be hopeless. All ulcers in the bowel should be opened, curetted and cauterised with acid nitrate of mercury, nitric acid, carbolic acid, permanganate of potash or Churchill's tincture of iodine, and carefully cleansed once or twice daily with peroxide of hydrogen and suppositories of hydrastis, iodoform, or a weak solution of zinci acetatis should be injected and retained; if there be much pain some anodyne should be added.

Fistulæ must be obliterated by laying open and dissecting out the channels, or by the injection of escharotics and cleansing daily with antiseptic washes. We frequently meet patients suffering from impacted feces who have taken "physic and saline cathartics" as they say with excellent results for a continued

period, but are still enduring the trouble arising from that condition, and find on examination the obstruction still present, but with a groove worn into the masses, by the liquid passages caused by these remedies.

For this condition I would advise an enema composed of ox-gall, mixed with hot water or castor oil, one ounce, spirits of turpentine, one dram, the yolk of an egg, and hot soap suds made of castile soap, one quart. The patient should be directed to retain this as long as possible and repeat the same frequently. We should aid him by breaking or cutting up the mass with proper instruments. After the patient is relieved it will be desirable to tone up the system, keep the bowels loose, and use intestinal antiseptics, or the same conditions will recur. When due to the presence of worms, treatment for their prompt and effectual removal must be employed.

The numerous skin diseases should receive the treatment they respectively require. The various uterine, ovarian and sexual troubles, diabetes, Bright's disease, gout, jaundice and affections of the liver require careful research and treatment. In cases of rigid and contracted sphincter, dilatation is frequently necessary and will give temporary relief, but, unless the exciting cause be removed, the contraction and itching will return. Anal fissure, the inciting cause of many cases of pruritus ani with which we have to contend, is produced by costive stools, or from spiculæ of bone, nails, seeds, or other foreign substances in the fecal matter, which, in their passage have injured the membrane, or by a polypus growth in the rectum. In such cases the sphincter muscles are contracted, and become so rigid that it is impossible to introduce anything into the bowel without causing great pain.

If an anesthetic is inadmissible, the dilatation of the sphincter must be accomplished by the administration of cocaine hypodermatically, the polypus removed, and the fissure treated with a saturated solution of carbolic acid, permanganate of potash, chloride or iodide of zinc, applied with a pointed glass rod or stick. After such cauterisation, the fissure should be painted with collodion, composed of iodoform, balsam of tolu or fir, or benzoin and sulphuric ether. The torturing pain attending a fissure, does not usually manifest itself until about thirty minutes after an evacuation; an anodyne should, therefore, be inserted immediately after the alvine discharge, thereby obviating the intense suffering, and reserving the strength of the

patient. Continuance of this treatment after each evacuation, with frequent applications of soothing lotions, will cause the severity and duration of the pain to grow less day by day, until the process of healing has become complete.

In writing upon a subject on which medical literature is so nearly silent, the writer is to a very great extent dependent upon his own observation and experience, and has, perhaps, given more prominence to some aspects of the subject than their importance may seem to merit. After an experience of many years in the treatment of this and kindred complaints, we believe that we have only attained the threshold of possible knowledge in this and other rectal troubles, and consider it to be one of the most promising fields for original research to be found within the domain of medicine.

200-210 D. S. MORGAN BUILDING.

The Relation Between the Dentist and the Surgeon.¹

By EUGENE A. SMITH, M. D., Buffalo, N. Y.,

Adjunct professor of clinical surgery, University of Buffalo.

DENTISTRY is classed with surgery as a department of medicine, using the latter word in a broad sense. Surgeons are frank to say that dentistry is merely a department of surgery and they class dentists with specialists in other departments of surgery, such as genito-urinary and orthopedic surgeons. Dentists themselves incline more and more to assume the title of dental surgeons, and schools of dentistry under the name of colleges of dental surgery are graduating doctors of dental surgery.

As a branch of surgery it is natural that dentistry should keep pace with surgery in scientific progress. Discoveries in materials and methods originating from experiment and experience are appropriated by both, and in both are used to overthrow old methods of treatment, to improve results, and to offer relief and aid to the sufferer where formerly there was no help.

All general surgeons take pride in the advance which surgery has made in the last twenty-five years and we are hopeful of future progressive possibilities. Dentists also may justly pride themselves on the remarkable progress of dentistry, especially

1. Read before the Alumni Association of the Dental Department of the University of Buffalo, February 20, 1902.

in our own country in the past quarter of a century. Dental colleges, especially in our State of New York, have raised their standards of admission, have developed new departments, and have adopted graded courses; in short, they are graduating dental surgeons who are scientifically equipped to deal with the injuries and diseases of the mouth cavity, the jaws, and the teeth. The world has traveled far on the path of progress since the barber was the surgeon and a man with a pinchers was a dentist. Scott's description of a dentist does not excel in horror the word pictures of a surgeon in works less than one hundred years old. But we may expect a far nobler word painting when in the future some gifted author arises to do justice to the modern ideal practitioner in each profession.

Theoretically, surgery and dentistry, while closely allied as branches of medicine, cover distinct fields of their own. Practically the relation of the surgeon and dentist is not so clearly defined that each may always safely work on his own ground, secure in feeling he does not trespass upon the field of the other. There is undisputed territory upon which each may maintain himself in firm independence. There is also disputed borderline ground between dentistry and surgery where each may work with reason; and finally, there is the class of cases of such debatable character that both surgeon and dentist should meet, consult, and work in mutual support and dependence for the welfare of the patient.

Theoretically surgeons should take a course in dentistry, and dentists should have a course in general surgery. Practically it would not make the surgeon a dentist, excepting in the mutilating branch of a dentist's work, nor would it make the dentist more than an oral surgeon. But it would enable each to see his chosen field of work in its relationship to the other and to grasp the perspective, so to speak, of sequelæ and possibilities outside of his own domain and well within the boundaries of his colleague. In my earlier years of general practice, I found it necessary to send many patients to the dentist for treatment, following out the plain indications of hygiene and prophylaxis. In the treatment of many diseases, notably the exanthemata, scurvy, tuberculosis, diabetes and syphilis, and in gastrointestinal disorders, such as stomatitis and gastritis, my therapeutics would have gone halting and lame without the aid of the dental surgeon. At times, under stress of circumstances, I took upon myself to discharge some of his duties for the sufferer whose

teeth, gums or mouth needed attention, and I trust I did as well as the dentist does when he occasionally infringes upon the prerogatives of the physician, by prescribing for the general disease which determines the local condition of the mouth which he has under his treatment.

In the last few years as a general surgeon my attention has been more and more frequently called to cases in the treatment of which I have been associated with a dentist, or have sent the patient to a dentist, or the dentist has referred one to me. In tribute to the professional courtesy of my dental associates in these cases, I can testify to the uniform professional and gentlemanly treatment I received from them, and I trust they say as much of my conduct toward them.

The relationship between dentist and surgeon in the natural order of subjects is first to be discussed in considering anesthesia. Mankind owes to Morton, a dentist, the discovery of this priceless boon and in a large sense, both surgery and dentistry are its beneficiaries above all other branches of science. The earthy sting in what would otherwise be a heavenly thing is the ever present danger which time has shown is attendant upon the use of an anesthetic. As a surgeon I confess a sense of grave responsibility in my daily work with anesthetics. Granting a careful preliminary examination of the patient and an urgent need of operation requiring anesthesia, the knowledge of immediate and post-operative dangers of our anesthetics should weigh upon us all as a serious responsibility. When we regard anesthesia from this point of view, we must conclude that a skilled anesthetist, a surgeon, or the family physician of the patient, should officiate for the dental surgeon, when an operation requires ether or chloroform and in addition a preliminary physical examination should be made of the patient, except in a case of extreme urgency. It seems to me the professional anesthetist, with a good experience, should find the dentists able and anxious to keep his hours filled. Surgeons are in a different category, because their operating hours conflict in a way to keep several anesthetists busy at the same time, and many operations are of an emergent nature.

We now come to the discussion of sepsis, asepsis and antisepsis, upon the understanding of which modern surgery has made its notable advances. All will admit that dentistry has been quick to apply the principles of antisepsis in dental work, and with brilliant results comparable with those of sur-

gery. It is open to question, however, whether dentistry realises the full value of asepsis. In dental journals and societies dentists are still devoting lengthy discussions to the relative advantages and disadvantages of antiseptic agents, as though antiseptics is the sum of all that is to be said after admitting the bacterial origin of sepsis.

It is true that the mouth itself can only be made comparatively sterile by antiseptics. It cannot be sterilised by boiling or by exposure to high grade of dry heat, but instruments and materials can be so treated, while hands can be covered with sterile rubber gloves, and a field of operation in a tooth can be cleaned and rendered aseptic. I am inclined to state that more dentists than surgeons can be found who disbelieve in asepsis and antiseptics in their work. Such men base their belief on the specious argument that they see no bad results from a neglect of aseptic and antiseptic precautions. Seldom can we find a surgeon now who attempts to argue against the bacterial theory of sepsis. At the most, some few surgeons are inclined to minimise the danger of sepsis.

As clinicians, surgeons and dentists have many unstable boundary lines in the broad field of sepsis. Alveolar abscess in hundreds of cases may begin and end as a dental problem purely, but in the occasional case in which an infection extends from such an abscess by the deep lymphatics to the deep cervical nodes, it becomes a problem that is distinctly surgical. More emphatically, the problem becomes surgical when the sepsis extends to the lingual glands, to the antrum of Highmore, or develops into Ludwig's angina, or a septicemia, or even a pyemia. Only recently a case of abscess of the sublingual gland occurred under my observation from extension of sepsis originating about the root of a filled tooth, and on several occasions, as in this case, a dental associate refused to consider a sinus from a chronic alveolar abscess as an indication of danger needing radical treatment. Caries, necrosis and osteomyelitis, due to sepsis or drugs, according to their limitations, may be within the field of dentist or surgeon, or may be excellent ground for both to meet upon in consultation to the benefit of the patient.

Dental journals devote much space to the discussion of the etiology of dental diseases, and much of this is fruitless, because the bacterial cause is not admitted, or imperfectly understood. Inflammation with destructive tendency, and hyperemia with reparative tendency, are still confusedly used interchangeably by

dental pathologists with resulting obscurity of meaning. It must not be forgotten that dental pathology is merely the local application of the truths of general pathology, and unless dentists devote themselves specifically to experimental laboratory work in pathology and bacteriology, their views on the etiology of dental diseases should be made to harmonise with the known facts of bacteriology and pathology. Many dental discussions now are reminders of the days in medicine when the exciting cause of a disease was deduced from clinical data with resulting interesting but unreliable theories of its etiology.

Passing to the differential diagnosis of new growths, surgeons are practically agreed that the pathologist and not the clinician is the diagnostician of all but the most simple and uncomplicated tumors. Epulis in dentistry and surgery is a term covering a multitude of errors. Too often an innocent, granulation-like mass, is found under the microscope to be small round-celled sarcoma, a most malignant new growth. Recently a young lad came under my care in the hospital who had lost an upper canine tooth and who had in its site a fungoid mass of this kind. It had been taken first for an abscess, then for granulation. Benign tumors are not always difficult of operative removal, but tumors of the malignant type need radical operative treatment, especially when the disease is not recent in origin. It follows, therefore, that dental surgeons must be ready to resect the superior maxilla, or to resect part or all of the inferior maxilla, with such clearing out of glandular and nodular involvement as may be necessary, before surgeons can concede to them the right to attack sarcoma or carcinoma affecting the structures of the mouth.

When we turn now to orthodontia, prosthetic and operative dentistry, the dental surgeon is within the well-defined bounds of his profession, and the surgeon must yield all claim to special training in the treatment of cases coming under these headings. Congenital defects and malformations, vicious growth of teeth, results of traumatisms, loss of teeth, conditions requiring fillings, crown and bridge work, and prosthetic work in general, are conditions that, as a rule, are entirely within the bounds of conservative dentistry. In cleft palate general surgeons are accustomed to operate, but in this field much attention is given to the treatment devised and advocated by Truman W. Brophy, M.D., D.D.S. In the treatment of fracture of the jaw interdental splints are more often employed by surgeons than for-

merly. In my own practice I have frequently called in a dental colleague for advice and help in the treatment of these cases, and I am convinced that better results would be obtained if such practice were more generally followed. The septic feature in these cases, compound as these fractures usually are, is the main factor in surgical treatment. The prosthetic feature is purely dental, and, so far, as interdental splint fixation is concerned, is in every way best managed by the dentist.

We may turn now to the recent action of the United States Government in appointing and assigning dental surgeons to duty in the army, under the direction of the Surgeon-General, as an evidence of the evolution of dentistry and of its relation to surgery. Dental surgeons are appointed to the rank and pay of assistant surgeons, and a graduate of the dental department of the University of Buffalo had the honor of passing the rigid examinations which secured for him one of the earliest appointments under the new law.

I served in command of a battalion of the 65th Regiment New York Volunteers at Camp Black and Camp Alger during the Spanish-American War, and I can testify to the need of dental surgeons in the army from personal experience as well as from observation of the dental troubles of the enlisted men. I myself had the misfortune to break loose a crown and bridge between two molars in May at Camp Black while chewing army food (not army beef, as I remember), and it was August before I had the crown and bridge replaced, while home on a furlough, by one of your faculty here in Buffalo. The sufferers among the men when they were driven to dentists were overcharged for inferior treatment by mediocre dentists who put up their "shacks," as we called the outlying shanties, near our camp lines. Under present regulations such injustice to our soldiers will no longer be permitted. Thus we see that dental surgeons are called upon to aid in insuring the marching power of the men, it being a military axiom that "an army marches on its belly," and we know good teeth insure a good digestion, in other words, is a good belly.

It must be admitted that some mutterings of discontent are beginning to be heard, regarding the partiality shown to the dental profession in the appointment of dental surgeons to medical rank and pay. Technical training without a medical foundation evidenced by the degree of doctor of medicine, it is argued, should not be placed on the level of a surgical training developed

after a long course in general medicine. In the next few years this question will be more freely discussed and finally decided, and to me it seems to tend strongly toward a medical diploma for the dental surgeon before his special degree is given upon the completion of his course in dentistry. The dental surgeon will then fairly stand upon the plane of the specialist in gynecology, ophthalmology, orthopedy, laryngology and other special branches of surgery. When this day arrives, if not before, every hospital staff will include the name or names of dental surgeons, as I am convinced should now be the case. In Buffalo at present only one hospital staff contains an oral surgeon's name. On the Buffalo General Hospital staff appears the name of your dean, W. C. Barrett, M. D., D.D.S.

In conclusion it must not be forgotten that this paper is written on the relation between the dentist and the surgeon—*by a surgeon*. When this relationship between the surgeon and the dentist is some day discussed from the viewpoint of the dentist, by a dentist, some alteration of opinion here expressed may naturally be expected. But I trust that harmony between dentist and surgeon will still prevail, redounding to the peace of mind of both, and far more than this to the health and welfare of the patient whose mouth disorder makes him an object of interest and a patient for the practitioners in both professions.

1018 MAIN STREET.

TRANSLATION.

Paraffin Injections.

TRANSLATED BY HERMAN MYNTER, M. D., Buffalo, N. Y.

From *Hospitals-Tidende*.

WE HAVE probably all read about the paraffin injections of Gersuny, of Austria, and how he has succeeded in remedying different defects by subcutaneous injection of paraffin, it having been shown that paraffin of a melting point a little higher than the normal temperature of the blood, remains indefinitely without reaction and may be shaped to overcome certain cosmetic defects. Gersuny in that way substituted in one case paraffin testes for the testes removed by castration; in another case overcame incontinence of urine in a woman with

widely dilated urethra with prolapse of the mucous membrane by submucous injections of paraffin.

Cases of cystocele, prolapse of vagina, and prolapse of uterus have been successfully treated by injections of paraffin into the vaginal wall and parametrium. Also, in inguinal hernia it has been used, the canal being considerably narrowed by its effect. Unsightly deformities of the face have been corrected with startling results, such as the deformity resulting from resections of the superior maxilla, saddle-nose, pits after smallpox, and the like.

The paraffin should have a melting point slightly above the normal temperature of the body, between 99° and 104° . If below the body temperature it will soon be carried away by the lymphatics, and if too hard, it may produce neuroses. Dr. Rupert M. Parker, of Chicago, from whom I largely quote (see *Journal American Medical Association*, April 19, 1902,) gives the following rules for the preparation of the paraffin: the ordinary lump paraffin is much too hard, and the paraffin known as medicinal vaseline too soft. These two products may be melted together in proportions to secure the desired consistency. The melting point may be tested with the clinical thermometer, the bulb being smeared with a thin coating of the wax and immersed in a water bath, which is gradually heated until the melting point is reached. Then the wax loosens itself and floats to the surface, the thermometer indicating the temperature. Parker's paraffin melts at 102° , has the consistency of vaseline and should be sterilised by heating before use.

The paraffin is injected by an ordinary hypodermic syringe with a large needle, the syringe being aspirated full of the melted paraffin and placed in hot water until needed. No anesthesia is necessary; or at most Schleich's method may be used. The paraffin is allowed to cool sufficiently to flow from the needle as a wormlike, semisolid, coherent string. The paraffin is distributed as desired by changing the position of the needle-point, while an assistant with the fingers molds it into the desired shape. Parker reports two cases with photographs of saddle-noses, in which the result seems simply perfect; the paraffin gradually increasing in hardness until the consistency of cartilage is reached. The only danger seems to be embolism of the lung if a vein should happen to be injured by the needle.

The following curious case reported in *Hospitals-Tidende*, of April 2, 1902, by Dr. Holger Trautner, in Grenaa, Denmark, is of unusual interest:

A young workman, 20 years of age, consulted the author on March 27, 1901. Nine months previously, in June, 1900, he suffered from acute mental disturbances, probably produced by a sunstroke, during which he completely castrated himself. It was impossible for him to explain why he did it or how he did it; he had never been insane or suffered from mental symptoms. He went to Dr. Trautner because he was in despair on account of the loss of his testes; he thought that every one knew all about it and despised him on that account. He asked the doctor if he could not do something for him. "Do you mean, can I make you a new pair of testes?" "Yes, if it is possible I would be very happy." "Yes, why not?"

After thorough sterilisation and disinfection the doctor thereafter injected 30 grams pure vaseline into each half of the scrotum. The operation was done at his office and without anesthesia, for secrecy's sake. The vaseline got stiff quickly and had the form of testes. The operation was not particularly painful. The patient returned to his home, walking four miles, and suffered no bad consequences. Since that time he had had no trouble with his new testes; and the doctor learned, through the patient's family, that he had been happy and satisfied. He took care to let it be known, little by little, that the castration had not been so perfect as rumor said, that he was just as good a man as anybody else, and it is probable that he occasionally exposed himself in order to prove it. He worked the whole summer and was perfectly well.

On January 14, 1902, ten months after the vaseline injection, he again called on Dr. Trautner and asked for a certificate to show in court, he having been sued for bastardy. He was very sorry to have the facts known, but unwilling to run the risk of being adjudged guilty and forced, according to Danish law, to pay eight crowns a month for eighteen years for the support of the child, so much the more as the girl seemed to have a good case, as he himself had bragged of having had intercourse with her.

The doctor gave him the following certificate: "N.N., is incapable of having sexual intercourse resulting in conception on account of total loss of his testes, the testes he has being formed artificially." He was therefore adjudged innocent, the girl, however, denying the justice of the decree.

The patient stated, furthermore, that he was able to have intercourse and that he had a sensation of ejaculation, although he knew this did not take place. He was, however, so impressed with the resources of medical science that he earnestly asked Dr. Trautner to give him something "which would make him perfectly normal again."

In the following number of *Hospitals-Tidende*, April 9, 1902, Dr. Jahrtmann pertinently asks who was the father of the child, and objects to Dr. Trautner's certificate, partly on the ground that a man may have more than two testes, cases being known in

which, besides the normal testes in the scrotum, two more were found in the abdominal cavity; and partly because the semen perhaps may be retained in the vesicula seminalis for a long time. In regard to the first objection, Dr. Thulstrup mentions a case in which a man was rejected as a soldier because he had a third testis in the inguinal canal. He thinks, therefore, that a man possibly may be a father even if he has two vaseline testes in his scrotum.

[NOTE BY THE EDITOR.—This contribution by Dr. Mynter is erroneously printed under the head of "Translation." It is a contribution to the JOURNAL by Dr. Mynter, and is only in part a translation from *Hospitals-Tidende*, as readily will be observed by the reader.]

CORRESPONDENCE.

Removal of the Martin H. Smith Company.

SUCCESS AND GRATITUDE.

Editor Buffalo Medical Journal :

Sir.—We beg to gratefully announce to the medical profession the removal of our offices and laboratories to 105 Chambers Street, New York, where with greater space and more extensive facilities, we shall be better enabled to take care of the increasing demand for ergoapiol (Smith) and glyco-heroin (Smith).

After having our personal statements as to the unusual efficiency of these preparations in their respective indications, verified by hospital and clinical investigations, we sought to interest the physician individually, and the satisfaction of those who have investigated, either or both could not be more fully manifested than in the necessity for our new and more commodious quarters.

Indeed, none the less is our gratitude to the BUFFALO MEDICAL JOURNAL, which has been so frequently mentioned in the communications requesting trial samples, etc., therein showing the large and wide-spread circulation of so consummate and estimable a journal.

MARTIN H. SMITH CO.

NEW YORK, May 25, 1902.

The Beginning of the End—The Knell of Sectarianism in Medicine.

Editor Buffalo Medical Journal :

Sir.—An event has recently occurred in medical circles that I think is worthy of more than passing notice. At a general meeting of the medical profession of this city, held in the rooms of the Academy of Medicine last winter, a resolution was presented in which occurred the words "homeopathic physicians." During the discussion of the resolution objection was made by Dr. F. Park Lewis and Dr. A. T. Bull to the use of the word "homeopathic," as indicating that there were any physicians who would allow their field of the scientific investigation and treatment of disease to be limited in such a way as this term implies; that in their opinion it was time to drop such qualifying adjectives; that sectarianism in medicine was really dead and that it was wrong to keep up the semblance of it by the use of such misleading terms; that, so far as they knew, no physician limited himself in his practice in such manner as the word homeopathic implies, and that it was the manly and honest thing to come out openly and say so.

Their words were received with hearty expressions of approval by the members of the profession present at that meeting. As a result of these remarks illustrative of his views, Dr. Lewis was urged by many of his friends to apply for membership in one of the regularly constituted county medical organisations.

At the meeting of the Erie County Medical Association, held May 15, 1902, the name of Dr. Lewis was presented for election to membership.

His application was signed by Dr. A. A. Hubbell, the President of the New York Medical Association and by Dr. Chas. G. Stockton, the chairman of the committee on ethics. It was approved by the committee on membership and Dr. Lewis was elected unanimously.

It seems to the writer that this is a notable occurrence as marking the beginning of the destruction of the barriers that have heretofore separated two large bodies of the medical fraternity. For many years the enlightened members of the medical profession have recognised that the chief barrier was purely academic, that the large body of so-called homeopathic physicians did not limit themselves in the treatment of disease to the use of medicine acting according to the law of "similia similibus," and that

on the other hand such remedies were not ignored by the regular profession, although other reasons were found for administering them; that the treatment of disease is becoming less and less a matter of administration of medicine and more and more an art of recognising how by physiologic means to conduct a case from sickness to restoration of health.

Under the circumstances the regular profession should rejoice in the step taken by Dr. Lewis, and should welcome him and all of the brethren who will follow him forward from the ranks of sectarianism to the ranks of the profession of medicine, which recognises no "pathies" or "isms" as applicable to the practice of a true science. In the interest of harmony,

DELANCEY ROCHESTER.

BUFFALO, N. Y., May 22, 1902.

Examinations for the U. S. Marine Hospital Service.

Editor Buffalo Medical Journal :

Sir.—A board of officers will be convened to meet at the Marine Hospital Bureau, 3 B Street, S. E., Washington, D. C., Monday, June 16, 1902, for the purpose of examining candidates for admission to the grade of assistant surgeon in the U. S. Marine Hospital Service.

Candidates must be between 21 and 30 years of age, graduates of a reputable medical college, and must furnish testimonials from responsible persons as to character.

The following is the usual order of the examinations: (1) physical, (2) oral, (3) written, (4) clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature and natural sciences.

The clinical examination is conducted at a hospital, and when practicable, candidates are required to perform surgical operations on a cadaver.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For further information, or for invitation to appear before the board of examiners, address

WALTER WYMAN,

Supervising Surgeon-General, U. S. Marine Hospital Service
Washington, D. C.

May 19, 1902.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITOR:

WILLIAM WARREN POTTER, M. D.

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NO. 11.

The Unification of the Medical Profession Again.

LAST month we directed the attention of our readers to a singularly interesting utterance upon the subject of the "Coming unification of the medical profession." In this issue we are permitted to notice facts of a most impressive character, showing the rapid progress of events, facts which permit us to claim without likelihood of successful controversy that, in this country, the virtual unification of the medical profession is an established fact.

In support of this view the fourth volume of Wood's Reference Handbook of the Medical Sciences, just issued, contains an article by James Russell Parsons, Jr., of Albany, secretary of the University of the State of New York, entitled, Examining and licensing boards, giving in a lucid and modest way most significant facts as to the rise and progress of state licensure, and as to the coincident progress in improvement of the management of our medical schools.

We invite attention to this article and proceed to apply some of the facts therein noted to the present medical situation. The preliminary work of unification of the medical profession of this state was inaugurated by the Medical Society of the State of New York, under the presidency of the eminent Dr. Abraham Jacobi, in the year 1881, through a movement which finally effected the repeal of the code of ethics, an instrument of many virtues, but in some of its provisions openly antagonistic to the medical laws of the state.

It is interesting to recall that at this time, 1881, there were in this country 5 schools of a three years' course, and 103 schools of

a two years' course, while there was not one school of a four years' course. In the year 1899 we find 141 schools with a four years' course, 10 schools with a three years' course and 2 schools with a two years' course. Examination of the various faculties reveals similar growth as to the number of teachers and the length of term. Then, two years, seven teachers and three months was the rule; now, four years, scores of teachers, and six months is the mode,—and from then to now, that is from 1881 to 1899, is only eighteen years!

This is certainly remarkable progress in medical improvement, and that the physicians having the superior advantages in professional training and preparation would, from their increased knowledge, incline their hearts to medical unity was the hope and the legitimate expectation of the men active in directing the movement. How that hope and expectation has met fruition,—the extent of the growth in medical unity, the close and rapid following of medical unity upon improved standards of medical education, of increased efficiency in preparedness for the practice of the healing art,—the article above mentioned points out and the view is glorious.

Medical unity in theory, in fact, and in action, invoking the majesty of the law to demand state examination and state licensure to practise medicine, is seen to have spread from its inception in this state and is now in efficient operation in fifty-one of the political divisions of the country; and the mixed examining and licensing boards, the boards composed of physicians, homeopaths and eclectics, meeting and consulting in practical equality, fraternity and harmony,—the precise medical situation the code of ethics was depended upon to prevent,—are now protecting the medical honor, and the public health from the incompetent medical graduates, in Alabama, Arizona, Arkansas, California, Colorado, Hawaii, Idaho, Illinois, Indian Territory, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Important, significant and satisfactory as are these milestones of the march of medical improvement, progress and unity, there are still others, and at least one other should be mentioned.

For nearly half a century, or since 1857, there has been on the part of the medical profession in almost every state in the union mutiny and rebellion, with organisation if not by force of arms, against the will of the people, as expressed in the laws of the land. Good men have been wont to retort, when it was pointed out that certain medical practice, custom or tradition, was contrary to the law and the constitution, "So much the worse for the constitution," and have thought that thereby they exhibited laudable devotion to the higher interests of ethics and medical science; whereas they now see that obedience to the law is the highest ethics, and that progress under the law and the constitution is not only both feasible and positive, but expedient.

The reorganisation of the American Medical Association with a constitution broad, catholic and simple, by practical unanimity, whereby the medical profession of this country is asked to unite for noble purposes, is a sign of the times, a bow of promise, a certain indication that through the narrow gate of obedience to the law, the medical profession has entered into such intimate and sympathetic relations with the people as to make the future radiant with hope. In this cause the medical profession of the Empire State through its executive organisation, the Medical Society of the State of New York, has borne a part at once initiative, conspicuous, and honorable.

Buffalo University.

THE 56th annual commencement of the Department of Medicine and the 15th annual commencement of the department of Pharmacy of the University of Buffalo took place at the Teck Theater Friday morning, May 2, 1902.

At 11 o'clock the members of the faculty of the two departments and the speaker of the morning, the Reverend David J. Burrell, D.D., of the Marble Collegiate Church of New York, took their places on the stage. The Chancellor, the Honorable James O. Putnam, took his appointed place and then the members of the classes in cap and gown filed into their seats, occupying the first four rows in the theater. The exercises were opened first with orchestral selections and then prayer by the Rev. Dr. Burrell. Dr. John Parmenter, secretary of the faculty of medicine, presented the candidates to the chancellor, who conferred the degree of doctor of medicine upon the following-named:

CLASS IN MEDICINE.

Grant Comstock Benjamin, Charles August Bentz, Ernest Grey Bingham, A.B., M.D., James Joseph Brown, Judson Murl Burt, Harry Sefton Campbell, Reger Cutting, Clarence Stanley Hunter Darlington, William Insko Dean, Carl Francis Denman, Charles Frederick Elliott, William Frederick Frasch, Ph. B., Albert Frey, Harrie Van Ness Frink, Robert Ellicott Gray, Charles Haase, Edward E. Haley, Augustus William Hengerer, Eugene Burt Horton, John Braiden Huggins, M. Louise Hurrell, Harry Fisk Hutchinson, James Henry Kellogg, Edward Cox Mann, Thomas Fitzgerald McNamara, Daniel P. Murphy, John Henry Page, Sophy Ellen Page, Richard James Pearson, Arthur Madison Phillips, William Ward Plummer, B. L., Fred Conley Rice, John Raymond Sackrider, George William Seitz, George Nicholas Smith, Otto K. Stewart, Charles Labram Vaux, and Thomas Joseph Walsh.

The honor men were William Frederick Frasch, Ph. B., Eugene Burt Horton, George William Seitz and John Braiden Huggins.

Dr. Matthew D. Mann, dean of the faculty of medicine, administered the Hippocratic oath.

CLASS IN PHARMACY.

Dr. John R. Gray, secretary of the faculty of pharmacy, then presented the candidates from that department and the chancellor conferred the degree of graduate in pharmacy upon the following-named:

Frank May Baldwin, Charles Alfred Bender, Frank Oswald Brickman, David William Briggs, Charles Augustus Brown, Earl Thomas Bryant, Clementine Chapin, Harry B. Ecker, Charles John Engelhardt, Andrew H. Fisk, Wade Edward Gayer, Walter Erastus Gorrie, Michael Moses Harris, Frederick Orrin Henry, Willis Clayton House, Elbridge Gerry Hunton, Lewis Johnson, Lewis Edgar Jones, Thomas Llewellyn Jones, Helena S. Katsmayer, George William Keopka, James Garfield Lloyd, Edward S. Loge, William Harris McCoach, Willis Lee Merkey, Jay Daniel Morton, Vincent Guard Newell, Carl Joseph Nies, Katherine Cooley Quick, Max Charles Salchow, Walter Franklin Sanford, Lucy Cecelia Schorp, Nettie Inez Sheridan, William Lennie Snow, Robert Raikes Street, George E. Swanson, Albert Warren Wagner, Carl George Westling, Harry Martin Wise, Herbert Gladstone Wright and Eugene Rhodes Wolfrom.

Certificates of examination were given to Frank O. Brickman, Charles J. Englehardt, Michael M. Harris, Lewis Johnson, Edward S. Loge, Carl Joseph Nies, Nettie I. Sheridan, Albert

W. Wagner and Carl George Westling, and upon attaining their majority the regular diplomas will be issued to them.

The announcement of honors was made by Dr. Willis G. Gregory, dean of the department of pharmacy.

The William H. Peabody prize of \$50 for the highest average standing during senior year, was awarded to Vincent G. Newell.

The four standing next highest in the class in the order given were Andrew H. Fisk, Charles J. Engelhardt, Lewis Johnson and Walter E. Gorrie.

The \$25 prize offered by the faculty for the student standing highest in the junior class was awarded to Eda M. Bennett. The next highest were Walter D. Nash, Anna F. Frey, G. Claude Carey and Harlan J. Q. Towe.

THE DOCTOR'S CREED.

The exercises closed with an address by the Reverend Dr. Burrell, who spoke on The Doctor's Creed. His talk was in the nature of a greeting to the newly-made doctors. He outlined their duties to themselves and to their fellow-men. He said that their work is in the behalf of humanity and it is their duty to answer the cry for help with the tenderest sympathy. He urged them to increase their usefulness to the world by constant study and to work to the end that they shall be not only good physicians, but good men.

THE ALUMNI ASSOCIATION.

The Alumni Association of Buffalo University Medical College held its 27th annual meeting on University Day, May 2, at which the various exercises as outlined in the JOURNAL for May were held. These included class reunions in the morning, luncheons at midday, a scientific program in the afternoon, and a banquet in the evening.

A full report of this meeting will be published in the next issue of the JOURNAL under the head of Society Proceedings, hence it will be unnecessary to go into detail here. We may add, however, that the meeting was well attended and was one of the most interesting in the history of the association.

THE CLASS IN DENTISTRY.

The eleventh annual commencement of the department of dentistry was held at the Star Theater, Tuesday afternoon, May 6, 1902, at which the degree of doctor of dental surgery was conferred on 55 candidates, by the Hon. James O. Putnam, chancellor.

The registrar of the faculty, Dr. George B. Snow presented the candidates to the chancellor, who conferred the degree on the following-named:

Dwight Howe Allen, Richard William Barry, Orren Wilson Bates, Arthur DeWitt Becker, George Miller Budlong, Andrew Dexter Cook, Herbert Erastus Cunningham, Frederick Bigelow Dudley, James Roe Dudley, Willard Lee Dutton, John Gibson Elliott, Jesse Lyman Exford, David Fawdrey, DeForest H. Findley, William DeForest Gamble, Frederick Anthony Garvin, Raeside Alexander Germill, William James Graham, Thomas Howard Gray, William Alonzo Griffith, Arthur Stearns Hasbrouck, Frederick Castner Havens, Horace Beals Hawley, Albert Woodsworth Hodges, Eber Little Inman, Ernest Harper Kelsey, Dimmick Enice Lamb, William Henry Leak, George Lewis Leitze, Charles Edward Lewis, James Porter Mallory, Hector Garner Marlatt, John Thomas McIntee, Peter McPherson, Alton De Witt Mesick, Chester Cole Milne, Clifford Frederick Moll, Hubert Alexander Newton, John Donald Ogden, Floyd Robert Roberts, Sarah Martha Schake, Ernest Edmund Schnitzpahn, Hildegard Elenore Schottky, Raymond Sylvester Scovil, Henry Adolph Semtner, Harold Reynolds Skinner, Byrd Emory St. John, Earle Sheldon Strong, Edward Louis Sugnet, Herbert Walker Taylor, A.B., Emerson Pomeroy Washburn, Aberlt Mitchell Wilbur, Norman Trounce Williams, Henry Clay York and Czar Emmons Zeluff.

Dr. W. C. Barrett, dean, announced the honor men and women, who composed over one-third of the class.

President Rush Rhees, of Rochester University, delivered the annual address to the graduating class and Rev. Dr. W. C. Wilbur, of Hornellsville, spoke on the ethics of professional life.

The annual banquet of the dental alumni association was held at The Genesee Hotel in the evening. A reception in the colonial parlors by the faculty and the graduating class followed the dinner, and the evening ended with dancing.

Substitution and Imitation.

THE importance of obtaining from the dispenser the precise article, drug, or preparation, prescribed by the physician has never been questioned. It is the underlying factor of all successful therapeutics. It is the safeguard of both physician and patient.

In these latter days in which there is such intimate relationship between physician, druggist and manufacturing pharmacist, the interests of these three are closely allied in the application

of therapeutics to diseased conditions. Whenever, therefore, the prescriber fails to secure purity of drug, or fixedness of standard in the manufactured preparation, the reputations of all these three are liable to suffer.

This subject has been discussed in general or in particular time and again, principally through the columns of medical journals. We have been led to refer to it this time because of three or four recent violations of the ethical principles herein presented. Within the last month a New York druggist has been detected in refilling the bottles which had contained a certain water, well known in the market, with ordinary Croton water, thus practising deceit and fraud of which he was duly convicted.

Some time ago the Farbenfabriken of Elberfeld Company detected a band of drug counterfeiters in the most despicable practice of adulterating the chemicals, which are placed upon the market through the agency of this well-known house. The products, themselves, were not only imitated but the labels and containers were also counterfeited. The firm prosecuted the parties and they were duly convicted; but it behooves druggists and physicians to be on their guard when buying or prescribing aristol, phenacetin, sulfonal, trional and other similar chemical products lest they, perchance, come across the adulterated articles. The firm has protected itself by its prompt action against further criminal practice of this kind, and the court of last resort has affirmed the judgment of the court below.

A still more recent flagrant and contemptible fraud has been unearthed by the M. J. Breitenbach Company of New York, the distributing agents of Gude's pepto-mangan. It appears that a Boston firm copied the style and wrapper of the package used in putting up the well-known preparation of iron and manganese above referred to. The firm was brought into court in Massachusetts and upon conviction a decree was issued from which the following excerpts are taken:

It is ordered, adjudged and decreed, that the defendant, ———, its directors, officers, agents and servants, be and they hereby are enjoined from making or using in any way, the terra cotta colored wrapper with white letters thereon, and the package in connection therewith, heretofore used by the defendant for its preparation of iron and manganese, a specimen of which wrapper is annexed to the Bill of Complaint and marked "B," or any other wrapper or package therewith which imitates the wrapper used by the complainant, the M. J. Breiten-

bach Company for its Gude's pepto-mangan, a specimen of which wrapper is annexed to the Bill of Complaint marked "A," and from selling or offering for sale any preparation of iron and manganese in any package or wrapper of a terra cotta color with white letters of the same style, shape, and general arrangement as those of the aforesaid wrapper used by the plaintiff, the M. J. Breitenbach Company, and from using the words "peptonate-manganese" on or in connection with such terra cotta colored wrappers with white letters of the same style, shape, and general arrangement, as those of exhibit "A."

And the defendant is directed to forthwith deliver to the plaintiff or its attorneys, to be destroyed, all the terra cotta colored wrappers and packages aforesaid like the said exhibit "B," which the defendant now has on hand or in stock or under its control in any way.

And it is further ordered, adjudged and decreed, that the defendant, —————, account to the plaintiff, the M. J. Breitenbach Company, for all profits which the said defendant has made from sales of said preparation in its said wrapper and package, and for all profits which the plaintiff would have made in the sales of its Gude's pepto-mangan but for the use made by the defendant of its said wrapper and package, and also for the damages to the reputation and standing of the plaintiff's said preparation, known as Gude's pepto-mangan, by reason of the said use by the defendant of its said packages and wrappers, and of its preparation therein contained, and for the damages otherwise sustained by the plaintiff by reason of the matters charged in the complaint.

We have quoted from this decree in considerable detail for the purpose of showing how complete the remedy is through the courts in such cases, provided the aggrieved persons have the courage, as in the instance above cited, to invoke the law. It would appear that the plaintiff in this action has obtained as full redress as it is possible for the law to give. The plaintiffs in these actions deserve the congratulations of the medical profession, as well as of druggists and pharmacists, for establishing their rights so conclusively. The several states should enact laws making the penalties severe for imitation or substitution.

The Registration of Nurses.

THE New York State Nurses' Association completed its organisation at the annual meeting held in Albany on April 15, 1902. The officers elected are: President, Miss Isabel Merritt, Cherry Valley; 1st vice-president, Miss Julia Bailey, Rochester; 2d vice-president, Miss E. J. Keating, Buffalo;

secretary, Miss E. C. Sanford, Rochester; treasurer, Miss Mary Brooks, Saratoga. Trustees: one year, Miss A. C. Maxwell, New York; two years, Miss S. F. Palmer, Rochester; three years, Miss L. L. Dock, New York. Chairman of committees: by-laws, Miss Ida R. Palmer, Albany; legislation, Miss Eva Allerton, Rochester; publication, Miss S. F. Palmer, Rochester; credentials, Miss A. C. Maxwell, New York; finances, Mr. L. B. Sanford, New York.

The society announces that it is ready to consider seriously the question of legislation for registration, which will ultimately place training schools for nurses under the supervision of the regents of the University of the State of New York, establishing thereby a more uniform basis of nursing education in the state, and eventually making trained nursing a recognised profession. This means a great reform, to accomplish which the nurses look to the coöperation of medical journals and medical societies, as well as the support of every intelligent citizen. The practical result of registration will be the protection of the public against imposters, of whom there are scores in every large nursing center, and a gradual raising of the standard of admission to training schools, with a more carefully prepared curriculum of both theoretical and practical instruction; in other words, better women, better nurses, fewer imposters, and a recognised profession for a great army of workers who now have no legal status.

The nurses of Illinois and New Jersey are already organised for this purpose, with Colorado, North Carolina, Pennsylvania and Massachusetts moving forward on similar lines. The movement is also strong in England.

The JOURNAL in its issue for April, 1902, dealt with this subject in its editorial columns, and is pleased to open them again in furtherance of the objects indicated by the organised body of nurses in the State association.

THE prevailing high price of beef caused, it is believed, by the action of the so-called beef trust, has led to a discussion relating to the use of other articles of food in substitution for meat. Professor H. W. Wiley, chief chemist of the department of agriculture, has been quoted on this subject as follows:

Without going into the question of price, Indian corn, wheat, rye and rice contain, as far as actual nourishment is concerned,

everything essential to supply the waste of the body and give the necessary health and energy to the system, and it is well known that men nourished extensively on cereals are capable of the hardest and most enduring manual labor. Meats are quickly digested, and furnish an abundance of energy soon after consumption, but are not retained in the digestive organism long enough to sustain permanent muscular exertion. On the other hand, cereal foods are more slowly digested, furnish the energy necessary to digestion and the vital functions in a more uniform manner, and are thus better suited to sustain hard manual labor for a long period of time.

The workmen of the country, Professor Wiley said, should consider this point, and accustom themselves more to the use of cereals in their foods. When properly prepared and served, they are palatable as well as nutritious, and their judicious use will tend to diminish the craving for meat, which, however, it is not advisable to exclude entirely from the diet.

Professor Wiley further said that it seemed probable that the price of meat, now abnormally high, will never again descend to as low a point as that reached a few years ago, and that the condition which now confronts the American people is, therefore, one of considerable permanency, and should be met and considered as such.

THE volcanic eruptions in the Windward Islands that occurred May 8, 1902, and during subsequent days, caused the most horrible destruction of human life in recent years. The city of St. Pierre with its 30,000 inhabitants has disappeared from the face of the earth and all of the population in the northern part of St. Vincent, about 1,700 in number, has been killed. Such a marvelous destruction of life and property is difficult to comprehend and pitiable to contemplate. It is to the credit of the American people that contributions of stores, provisions, medicines and money were promptly made in more than adequate quantities to meet the emergency, and that medical officers were sent forward to minister to the suffering survivors.

BRIGADIER-GENERAL GEORGE M. STERNBERG, Surgeon-general U. S. Army, will retire from active service June 8, 1902, by reason of age limit. The conspicuous services rendered by General Sternberg receive the commendation of medical men throughout the world. It is announced that congress has taken action looking toward Dr. Sternberg's promotion to the rank of Major General on the date of his retirement. This would be a gratifying recognition of faithful and efficient service, and we earnestly hope that it may be done. As a matter of fact the

surgeon-general of the army should rank as a major-general as soon as he takes office, rather than when he leaves it; but even the latter promotion is better than none at all.

IN ANOTHER column we publish a review of two volumes of Nothnagel's System of Practical Medicine together with a portrait of Professor Nothnagel. The English translation of this great work, which is publishing by W. B. Saunders & Company, of Philadelphia, will furnish a supply of the best recent literature on medicine.

The publishers have furnished us with a biographical sketch of the distinguished editor, author and teacher, from which we extract the following:

Nothnagel today is at the height of his scientific activity, which dates from the year 1865, when he was appointed Leyden's assistant in Königsberg. In 1867 he was Docent at Breslau; in the years 1872 and 1873 he taught in the capacity of professor at the medical policlinic in Freiburg in Baden; later he was Ordinarius in Jena from 1874 to 1882, when he was called to Vienna. His first celebrated work, *Handbuch der Arzneimittelehre*, appeared in 1870. This was followed by two essays replete with original observations: *Topische Diagnostik der Gehirnkrankheiten*, in 1879, and *Beiträge zur Physiologie und Pathologie des Darmes*, in 1884. Experimental investigations of the highest importance are contained in these publications, as well as in shorter compositions on the brain, the effect of lightning, temperature-sense, vasomotor neuroses, convulsions, Addison's disease, and the cardiac regulating mechanism. More recently, Nothnagel has written on two modern subjects, *Compensatory Processes in Pathologic Conditions* and *Vascular Pain*. Since the year 1894 he has been engaged in editing the great *Specielle Pathologie und Therapie*, for which he himself wrote the volume on the Diseases of the Intestine and Peritoneum. This magnificent work is now being translated into English and will be published by W. B. Saunders & Company, of Philadelphia.

GOVERNOR-GENERAL LEONARD WOOD on May 20, 1902, relinquished the control of the United States over the island of Cuba to President T. Estrada Palma, lowering with his own hand the United States flag that has for more than three years floated over the government palace at Havana, and raising in its place the colors of "Cuba Libre."

Marvelous changes have been wrought in the island during Governor Wood's administration. Schools have been estab-

lished, courts of justice reformed, sewers built, streets paved, and police administration put upon the highest plane of efficiency and economy. But best of all, the sanitary condition of the entire island and especially of the two chief cities has been brought up to a standard that compares favorably with the best in the United States.

In Havana, for the nine years ending with 1898, the average annual death-rate was nearly 47 in every 1,000 of population. In that year (1898) there were 21,252 deaths in the city. In twelve months this had been cut down to 8,153, which was further reduced to 6,102 in 1900, and 5,720 in 1901. Finally, the scourge of yellow fever has been practically wiped out. A record of the 45 years preceding 1901 shows an average of more than 751 deaths in every 1,000 cases, ranging from 2,058 in one season down to 51 in the best. American science and common sense sanitation have left for 1901 a record of but 18 deaths.

Surely the United States has redeemed its pledges and retired from the island with honor.

PERSONAL.

DR. EDWARD J. BODENBENDER, of 660 Walden Avenue, has been appointed East Side Homeopathic District Physician, to succeed the late Dr. E. A. Fisher. Dr. Bodenbender was appointed from the civil service list, on which he had a marking of 100 per cent.

DR. H. R. GAYLORD, of Buffalo, pathologist at the state laboratory, will sail for Europe about July 1, to be absent a year or more pursuing investigations in the surgical clinics of Germany. He will be accompanied by Mrs. Gaylord.

DR. L. J. McADAM, of Buffalo, announces that hereafter he will be professionally associated with Dr. C. M. Daniels, 315 Jersey Street, corner of Plymouth Avenue. Hours: 9 to 11 a.m.; 2 to 4 p.m. Telephone, Tupper 336.

DR. CHARLES F. HOWARD, of Buffalo, has been elected president of the board of managers of the New York State Reformatory located at Elmira.

DR. MAX C. BREUER, of Buffalo, sails for Europe late in June to spend the remainder of the summer in Germany.

DR. JAMES STODDART, of Buffalo, has removed from 90 York Street to 770 Elmwood Avenue.

DR. MYRTLE A. HOAG, of Buffalo, has removed her offices from 397 to 426 Dearborn Street.

OBITUARY NOTES.

Death of Mrs. Dowd.

HEPSABETH MARIE (nee Davis), wife of Dr. J. Henry Dowd, after a brief illness died Sunday, May 25, 1902, aged 30 years. An operation for appendicitis had been made without avail, and death came as a great shock to the community. Dr. Dowd has the profound sympathy of his professional colleagues and many other friends in the bereavement that has befallen himself and his little daughter, a bright child of four years.

DR. FREDERICK A. CASTLE, of New York, died April 28, 1902, aged 59 years. He served in the medical corps of the navy during the civil war and was a medical editor of prominence for many years. He also held the chair of materia medica and therapeutics in Bellevue Hospital Medical College for a considerable period. He was prominent in medical affairs generally, was a member of several clubs and a companion of the Military Order of the Loyal Legion.

DR. JOHN HOMANS, 2d, of Boston, died in that city May 4, 1902, aged 45 years. Dr. Homans was a physician of prominence, held many important professional and institutional positions, was a member of the Society of the Cincinnati, and was greatly respected by his colleagues and other friends.

DR. WILLIAM TOD HELMUTH, of New York, head surgeon of the Flower Hospital, and one of the foremost representatives of the homeopathic school of medicine in this country, died at his home, No. 67 Madison Ave., from heart disease May 15, 1902. He was born in Philadelphia on October 30, 1833, was a graduate of the Homeopathic Medical College, Philadelphia, in 1853 and in 1888 received the degree of LL.D., from Yale University.

He was ex-president of the American Institute of Homeopathy, of the New York State Homeopathic Medical Society, and the New York County Homeopathic Society. He was also president of the Collins State Homeopathic Hospital and an honorary member of the Société Médicale Homeopathique of France.

SOCIETY MEETINGS.

THE American Surgical Association will hold its 20th annual meeting at Albany, June 4, 5 and 6, 1902.

THE March meeting of the Physicians' League of Buffalo was postponed and held at the home of Dr. Cora B. Lattin on April 7. Dr. Ida C. Bender, read a paper on the necessity of sanitary inspection in the public schools, and Dr. Helene Kuhlman read a paper on Dementia precox.

THE 11th annual meeting of the Association of Military Surgeons of the United States will convene in Washington, D.C., on Thursday morning, June 5, 1902, and continue in session during the two following days. Every member is cordially urged to be present and participate in all the exercises, both social and literary.

THE Medical Society of the County of Erie will hold its 81st semiannual meeting in the parlors of the Y.M.C.A. building, Tuesday, June 17, 1902, at 10 o'clock a.m., under the presidency of Dr. W. M. Ward, of North Collins. The following program has been arranged: Nasal deformities and their correction, John O. Roe, Rochester; The state license to practise medicine, William Warren Potter, Buffalo, John M. Lee, Rochester, and Lee H. Smith, Buffalo, presidents of the State Medical examining boards; discussion opened by Dr. Henry R. Hopkins, president of the Medical Society of the State of New York. Congenital pulmonary stenosis, Joseph Burke, Buffalo. Presentation of a case of aortic aneurism, William C. Krauss, Buffalo.

THE United States Pension Examiners of the State of New York will hold a meeting at Saratoga Springs, June 9, 1902. The following program has been prepared: Address of welcome, E. Valencourt Deuell, president of the Saratoga Board; Defects

in reports of examining surgeons, with suggestions for their improvement, J. F. Raub, medical referee Pension Bureau, Washington, D.C.; discussion to be opened by William Warren Potter, Buffalo. The influence and value of organisation, George W. Miles, Oneida; discussion to be opened by W. L. Ayer, Owego. The advantages of organisation from the point of view of the special examiner, Wheelock Rider, Rochester; discussion to be opened by John N. Oliver, Brooklyn. All pension examining surgeons in the state are cordially invited to attend. Dr. William A. Howe, of Phelps, is the secretary, who may be addressed for further particulars.

THE Buffalo Academy of Medicine held meetings during the month of May as follows:

Section on Surgery.—Tuesday evening, May 6. Program: An experimental and clinical research into surgical shock and collapse, illustrated by stereopticon, Geo. W. Crile, Cleveland, O.

Section on Medicine.—Tuesday evening, May 13. Program: Jaundice, with report of interesting cases, J. M. Anders, Philadelphia; A case of acromegaly, F. S. Crego; Heredity, Wm. C. Krauss.

Stated Meeting.—Tuesday evening, May 20. Program furnished by Section on Pathology: Dysentery and its causes, Simon Flexner, Professor of Pathology, University of Pennsylvania; Notes on a few cases of smallpox from the Buffalo epidemic of 1901-1902 (stereopticon), David E. Wheeler.

Section on Ophthalmology, Otology, Laryngology and Rhinology.—Monday evening, May 26. Program: All members of the Academy interested in this section are requested to be present to decide if meetings shall be continued. Annual election of officers of this section.

THE Erie County Medical Association held a meeting in Buffalo, at the University Club, 295 Delaware Ave., Thursday, May 15, 1902, at 8.30 p.m. The program was: Colles's fracture, John Parmenter; leaders of discussion: W. C. Phelps, Eugene A. Smith. Brewers' yeast in therapeutics, Julius Ullman; leader of discussion: Charles G. Stockton.

The officers are: President, Joseph W. Grosvenor, Buffalo; vice-president, Howard L. Hunt, Orchard Park; secretary, Jacob

S. Otto, Buffalo; treasurer, William J. Thornton, Buffalo; members of executive committee, A. A. Hubbell, Bernard Cohen, Lorenzo Burrows, Jr., all of Buffalo.

THE American Orthopedic Association will hold its 16th annual meeting at Philadelphia, June 5, 6, and 7, 1902.

THE Rochester Academy of Medicine, section on surgery, held its regular monthly meeting at the Genesee Valley Club, Wednesday, May 14, 1902, at 8.15 p.m. The following program was observed: The management of middle-ear suppuration, Wendell C. Phillips, New York (by invitation); discussion opened by F. Whitehill Hinkel, Buffalo (by invitation)¹, Thomas H. Halsted, Syracuse (by invitation), John O. Roe and Wheelock Rider. Edward W. Mulligan, chairman. William M. Brown, secretary.

THE National Confederation of State Medical Examining and Licensing Boards will hold its twelfth annual meeting in the hall of the Y. M. C. A., Saratoga Springs, N. Y., Monday, June 9, 1902.

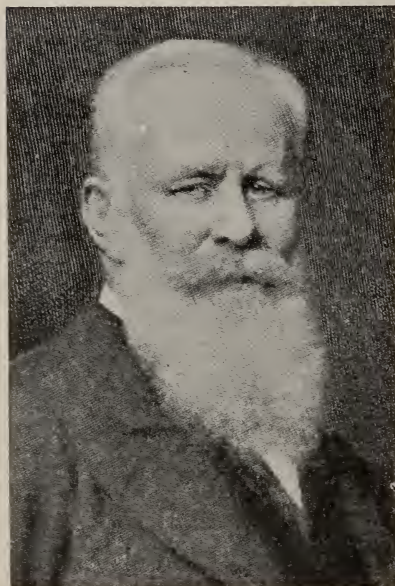
BOOK REVIEWS.

AMERICAN EDITION OF NOTHNAGEL'S ENCYCLOPEDIA. Volume I. Typhoid and Typhus Fevers. By DR. H. CURSCHMANN, of Leipzig. Edited, with additions, by William Osler, M. D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Octavo of 646 pages. Illustrated; including a number of temperature charts and 2 full-page colored plates.

Volume II. Variola (including Vaccination), by Dr. H. Immermann, of Basle. Varicella, by Dr. Th. von Jürgensen, of Tübingen. Cholera Asiatic and Cholera Nostras, by Dr. C. Liebermeister, of Tübingen. Erysipelas and Erysipeloid, by Dr. H. Lenhartz, of Hamburg. Whooping Cough and Hay Fever, by Dr. G. Sticker, of Giessen. Edited, with additions, by Sir J. W. Moore, B. A., M. D., F. R. C. P. I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Octavo volume of 682 pages. Illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. [Price, cloth, \$5.00 net; half-morocco, \$6.00 net.]

Nothnagel's Encyclopedia will be given a cordial welcome by every progressive physician, but especially by those unfamiliar with the German language, will this American edition be eagerly sought and read. The first volume will prove of special interest because it deals with typhoid fever in an exhaustive manner, bringing its scientific observations down to the latest day.

The etiology of the disease is accorded about 60 pages, in which is contrasted the early opinions with those prevailing at the present time. As a conclusion the assertion is made that the development of typhoid is dependent upon lesions resulting from the invasion of the Eberth-Gaffky bacillus, and that the typhoid bacillus is not identical with the bacillus coli. The section on pathology is interesting, confirming as it does the observations



PROFESSOR NOTHNAGEL.

that the chief manifestation of the disease is in the jejunum and downward, but detailing all collateral lesions or alterations that occur in other organs. Of particular moment is the changed elements of the blood, Thayer's work having been utilised in this relation.

The section devoted to the consideration of symptoms and complications is naturally the largest, covering upward of 160 pages and is of absorbing interest. Here the clinician will find every symptom and complication that has yet been observed, carefully described and its due weight given. The surgery of typhoid fever, interest in which was revived by Keen's contribution to the subject, has been dealt with most satisfactorily; indeed, Keen's

work has been drawn upon for much material in revising this part of the book. Recrudescences of the disease are believed to be due to a revival of the primary processes rather than a renewal of the infection,—an opinion that appears to be pretty definitely settled at the present time. Perforative peritonitis is always to be dreaded as a sequel of typhoid fever, and much light is thrown upon this portion of the subject by the additions which the American edition contains.

It is conceded by the author that immunity usually is entailed by an attack of typhoid fever, though there are exceptions, and as many as three or four recurrences of the disease in the same individual have been noted. In the diagnosis, clinical investigation is placed in advance of the bacteriologic methods, the latter not yet having reached that perfection which is desirable. Serum-diagnosis is given the credit of being a great aid, and Pfeiffer, Gruber, and Widal are given due acknowledgement for their labors.

In the treatment, diet, environment and hygiene are made to play a far more important rôle than drugs. Hydrotherapy, however, is given a prominent place in the management and antipyretics are used in appropriate conditions, though with a sparing hand. The whole area of typhoid fever is covered in a skillful and scientific manner and the monograph cannot fail to prove of valuable aid to every one called upon to deal with the disease.

The remainder of this volume, about 150 pages, is set apart to the consideration of typhus fever and is full of interest to the teacher of medicine. It is a disease so rarely met with in this country that it has ceased to attract the attention of the everyday practitioner.

The second volume considers the acute infectious exanthemata, as well as cholera, erysipelas, whooping cough, and hay fever. Hence, it becomes of great value to the health authorities, who administer the great trusts of preventive medicine in the large centers of population. Perhaps at this time the chief interest will group around the chapter on vaccination, in view of the fact that this most potent prevention to the spread of smallpox is being attacked by the ignorant, the superstitious and the super-refined.

It will be pertinent, perhaps, to quote from the closing remarks of this section the following paragraph:

Scruples on the part of the state against compulsory vaccination must be designated as weak, since vaccination is not only useful to the individual, but indirectly protects the whole community. Moreover, compulsory vaccination of children is not only a desideratum, but an ethical duty, since children as yet without the power of deciding for themselves should not be given over arbitrarily to their elders and thereby eventually become the prey of variola.

This succinct statement of the duty of the state and the ethics of the subject should, alone, cause the opponents of vaccination to pause in their mad antagonism, and ask themselves what right they have to take a stand so dangerous to the community.

Erysipelas is a disease too little understood by the average medical practitioner, and may be studied here with profit. The pathology of this peculiar affection is set forth with surprising intelligence and interest. Whooping cough and hay fever are described in the final chapters, and the index and references serve to complete a book of remarkable utility.

A MANUAL OF CLINICAL LABORATORY METHODS. By JOHN BENJAMIN NICHOLS, M. D., in Charge of the Clinical Laboratory of Garfield Hospital; Hematologist to Columbian Hospital; Professor of Normal Histology in the Medical Department of Columbian University, Washington, D. C. Illustrated. New York: William Wood & Co. 1901.

This work is prepared to meet a necessity growing out of the prevailing methods of clinical diagnosis. It first describes the necessary equipment for such investigations and then proceeds to instruct in the examination of the fluids and solids of the body, beginning with the blood. Nichols's technic is simple but thorough, and is ample for the practical purposes intended.

The stomach is next taken up, its character first described and then its contents examined during fasting and after test meals; its washings, and vomitus are dealt with; and, finally, its motor and absorptive powers are considered. The feces and intestinal discharges are examined with precision; then the sputum and the urine are considered with much detail. The section on examination of the urine is one of the best we have seen and should be carefully studied.

The chapters on the miscellaneous secretions and body fluids, and the pathologic fluids are full of interest, as are those, also, upon parasites, clinical bacteriology and autopsies. An excellent index closes the volume, which contains forty-two illustrations. It is a book full of useful information and adds to the literature of medicine in a substantial manner. It helps to make the practising physician more accurate by stimulating him to research work in his own cases, instead of sending to a distance, which entails delay and divides his income. Furthermore, it generates a scientific esprit de corps in the medical profession to study such a book, and then to proceed to put the knowledge which it inculcates into practical application.

PROGRESSIVE MEDICINE, Vol. I., 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 452 pages, 5 illustrations. Philadelphia and New York: Lea Brothers & Co. 1902. [Per annum, in four cloth-bound volumes, \$10.00; per volume, \$2.50, by express prepaid to any address.]

This volume appears with its customary promptitude and is prepared with the usual skill and care of its accomplished editor. Its contents includes surgery of the head, neck, and chest by Charles H. Frazier; infectious diseases, including acute rheumatism, croupus pneumonia, and influenza, by Frederick A. Packard; diseases of children, by Floyd M. Crandall; pathology, by Ludvig Hektoen; laryngology and rhinology, by St. Clair Thompson (of London); otology, by Robert L. Randolph, and an admirable index.

It is an excellent selection of the valuable literature that has appeared recently on these subjects, and makes an important addition to the working library of the busy physician.

TRANSACTIONS of the American Surgical Association. Volume the Nineteenth. For the year 1901. Edited by RICHARD H. HERTER, M. D., Recorder of the Association. Pp. xxviii.—514. Philadelphia: William J. Dornan, Printer. 1901.

This book contains a record of the work done by this distinguished association at its annual meeting, May 7-9, 1901, which we believe was held at Baltimore, though there is nothing in the volume to indicate the fact. The association was presided over by Dr. Roswell Park, of Buffalo, who chose for the

subject of his presidential address, The recent Buffalo investigations regarding the nature of cancer, a topic involving questions of interest at this time in all medical centers, especially where laboratory investigations are pursued. A group of papers pertaining to cancer followed the address, by Thomas S. Cullen, W. S. Halsted, William B. Coley and Joseph D. Bryant, which taken together, make interesting material for the reader who is keeping in touch with the literature of the subject.

There are other valuable surgical papers in this volume which is one of the best the association has issued, and every surgeon will enjoy reading it.

BOOKS RECEIVED.

The Drug Habits and Their Treatment.—A Clinical Summary of Some of the General Facts Recorded in Practice. By T. D. Crothers, M. D., Superintendent Walnut Lodge Hospital, Hartford, Conn.; Professor Diseases of the Brain and Nervous System, New York School of Clinical Medicine Pp., 96. Chicago: G. P. Englehard & Co. 1902. [Price, \$1.00 net.]

The Perverts. By William Lee Howard, M. D. Duodecimo, pp. 388. New York: G. W. Dillingham Co. 1902. [Price, \$1.50.]

Twenty-first Annual Report of the State Board of Health of New York. For the year ending December 31, 1900. Transmitted to the legislature February 18, 1901. With maps. Albany: James B. Lyon, State Printer. 1901.

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F. R. C. S., F. R. S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital, etc.; and F. F. Burghard, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, etc. In seven imperial 8vo volumes, with illustrations. Volume VI. 498 pages, with 124 illustrations. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$5.00 net.]

Ophthalmic Myology. A Systematic Treatise on the Ocular Muscles. By G. C. Savage, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University; Author of "New Truths in Ophthalmology." Duodecimo, pp. 596; 61 illustrative cuts and 6 plates. Nashville, Tenn: Published by the author. 1902.

A Practical Manual of Bacteriology for Students and Physicians. By A. C. Abbott, M. D., Professor of Hygiene, University of Pennsylvania. New (6th) edition, revised and enlarged. In one 12mo volume of 636 pages, with 111 illustrations, 26 colored. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$2.75 net.]

The Medical Treatment of Gall-Stones. By J. H. Keay, M. A., M. D. Duodecimo, pp. 133. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, \$1.25.]

The Practical Medicine Series of Year Books. Ten volumes. Issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post Graduate Medical School. Volume V. Obstetrics. Edited by Reuben Peterson, A. B., M. D., Professor of Obstetrics and Gynecology in the University of Michigan; and Henry F. Lewis, A. B., M. D., Instructor in Obstetrics and Gynecology in Rush Medical College. Duodecimo, pp. 233. Illustrated. Chicago: The Year Book Publishers. 1902. [Price, \$1.25.]

The Operations of Surgery. By W. H. A. Jacobson, M.Ch., Oxon, F.R.C.S., Surgeon to Guy's Hospital; Consulting Surgeon Royal Hospital for Children and Women; Member Court of Examiners, Royal College of Surgeons, etc.; and F. J. Stewart, M. S., London, F. R. C. S., Assistant Surgeon, Guy's Hospital and

to the Hospital for Sick Children; Surgeon-in-Charge of the Throat Department, Guy's Hospital. Fourth edition, revised, enlarged and improved. 550 illustrations. Two volumes. Volume I. Operations on the Upper Extremity; Operations on the Head and Neck; Operations on the Thorax. Volume II. Operations on the Abdomen; Operations on the Lower Extremity; Operations on the Vertebral Column. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, cloth, \$10.00; sheep, \$12.00 net.]

Proceedings of the American Medico-Psychological Association, at the fifty-seventh annual meeting, held at Milwaukee, Wis., June 11-14, 1901. C. B. Burr, M. D., Secretary. Published by the Association. 1901.

Quain's Dictionary of Medicine. By various writers. Edited by H. Montague Murray, M. D., F. R. C. P., Joint Lecturer on Medicine, Charing Cross Medical School, and Physician to Out-patients, Charing Cross Hospital; Senior Physician to the Victoria Hospital for Children, Chelsea, and to the Foundling Hospital. Assisted by John Harold, M. B., B. Ch., B. A. O., Physician to St. John's and St. Elizabeth's Hospital, and Demonstrator of Medicine at Charing Cross Medical School; and W. Cecil Bosanquet, M. A., M. D., M. R. C. P., Physician to Out-patients, Victoria Hospital for Children, Chelsea, and Pathologist to Charing Cross Hospital; Late Fellow of New College, Oxford. Third edition, largely rewritten and revised throughout. With 14 colored plates and numerous other illustrations. New York: D. Appleton & Co. 1902. [Price, half-morocco, \$10.00.]

The Surgery of the Rectum. By Charles B. Kelsey, A. M., M. D., Late Professor of Pelvic and Abdominal Surgery at the New York Post-Graduate Hospital, and Professor of Rectal Surgery at the University of Vermont. Octavo, pp. 411. Sixth edition. Illustrated by 215 engravings. New York: William Wood & Co. 1902. [Price, \$3.00.]

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by Henry W. Cattell, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume I. Twelfth series. 1902. 84 illustrations, with 3 colored plates. Philadelphia: J. B. Lippincott Co. [Price, cloth, \$2.00 each; half-leather, \$2.25 each.]

LITERARY NOTES.

THE Palisade Manufacturing Company, of Yonkers, has issued a syllabus of bacteriology which is designed to aid in the microscopic diagnosis of disease. It is a well-printed brochure of about 50 pages, and contains some fine plates in colors giving accurate appearances of the different bacilli of commoner existence. The directions for preparing sections for staining and making the necessary solutions therefor, together with the descriptions of the several bacilli are concise and based on recent studies. The title-page contains pictures of Koch, Pasteur, and Sternberg, an appropriate recognition of these great investigators. The publishers present it to physicians as "an accurate, succinct and yet comprehensive working guide" to enable them

to conduct the ordinary and essential bacteriological examinations. It will be furnished upon application.

THE First Report of the New York State Hospital for the care of Crippled and Deformed Children, covering a period of ten months, ending September 30, 1901, has been issued. The hospital is located at Tarrytown and the excellence of its work is beyond dispute. The report contains a number of half-tone engravings, showing the characteristic features of the service. The consultants from Buffalo are Dr. Roswell Park and Dr. Charles G. Stockton.

BATTLE & Co., of St. Louis, have issued chart No. 7 of the surgico-anatomical series, illustrating fractures of the clavicle. The bony and muscular structures involved are graphically depicted, the colors and shades giving effective contrast to the injury. The indications for treatment are summarised in the description that accompanies the engraving.

THE Grosvenor Public Library, of Buffalo, has issued recently a catalogue of poetry in the English language, which the library contains. It is a brochure of 128 pages, imperial 8vo, and enumerates 3,542 volumes and 296 pamphlets. It will prove a valuable aid to all interested in poetry.

MONSIEUR A. MARIANI, of Paris, has lately published a brochure entitled, *Eminent Physicians' Portraits and Biographical Sketches*, compiled from *Album Mariani*, which has been noticed heretofore in these columns. This compilation contains woodcut engravings, beautifully executed, of thirty prominent members of the Paris Academy of Medicine, all of whom speak in praise of Vin Mariani. The pamphlet is furnished from the New York office, 52 W. Fifteenth Street.

THE Forty-third Annual Report of the Buffalo General Hospital, the same being for the year 1901, has been issued. The statistics of the year are: treated in the hospital, 2,852 cases, divided as follows—medical, 1,176; general surgical, 1,231; ophthalmological, 30; otological and rhinological, 83; gynecological, 332. Operations performed, 1,232, of which 856 were general surgical; 285 gynecological; 18 ophthalmological; 73 otological and rhino-laryngological. Total number of ambulance calls, 935.

The Optical News is the name of a new monthly leaflet, published by Mr. J. W. Jarvis, successor to the Fox Optical Co. Besides a number of interesting notes relating to spectacles and eyeglasses, the issue for May contains a notice of the removal of Mr. Jarvis's entire plant to 508 Main Street, Buffalo, where spacious and well-equipped rooms may be seen.

E. P. DUTTON & COMPANY publish an important book, entitled *Sanatoria for Consumptives*, which is a critical and detailed description, together with an exposition of the open-air or hygienic treatment of phthisis, by F. Rufenacht Walters, Fellow of the Royal College of Surgeons. Sir Richard Douglas Powell has written an introduction. The book describes the more important institutions, and in this way an account of the most approved methods of the treatment of consumption.

ITEMS.

SANGUIFORM.—Sanguiform, a chalybeate tonic containing true organic iron, is referred to in the advertisement of Messrs. John Wyeth & Brother appearing on page xxxi. There is an obvious and well known resistance to the absorption of the various salts of iron as ordinarily offered the physician, however soluble these salts may be, but when the inorganic state is rendered into an organic condition, it is then reasonable to believe that an advance step has been made, and a hitherto great obstacle to the applied usefulness of iron as a reconstructive blood component is overcome. In sanguiform, iron is presented in organic form in complete combination with the other elements of normal healthy blood, and affords the physician the opportunity of prescribing for his patients a most valuable reconstituent in the most assimilable form.

Messrs. Wyeth & Brother solicit the correspondence of physicians relative to sanguiform.

REMOVALS.—Messrs. Martin H. Smith Company have removed their entire business from 68 Murray Street to 155 Chambers Street, New York. See correspondence, p. 835.

MESSRS. D. APPLETON & COMPANY, medical publishers, have leased the building southwest corner Fifth Avenue and Thirty-ninth Street, New York, and will remove their entire plant to the new offices.

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ORIGINAL COMMUNICATIONS.

Medical Inspection of Schools.

By DE LANCEY ROCHESTER, A. B., M. D., Buffalo, N. Y.,

Associate Professor of Principles and Practice of Medicine. University of Buffalo.

THERE are two great duties incumbent upon the members of the medical profession, viz.: the prevention of the occurrence of disease and the treatment of disease when it does occur. In the mind of the layman and, alas, of many of the profession, the second, the treatment of disease—is the chief concern of the physician and in the first he has too little interest.

Nevertheless, ever since scientific medicine, the daughter of the microscope, has had an existence, the chief aim of the most devoted of the worshipers at her shrine has been to enlarge more and more the scope of the first of these duties, so that now preventive medicine is gaining more and more adherents and we may look forward with assured faith that the time will come when the prevention of disease will be the chief—even though it may possibly never be the only—duty of the members of the medical profession.

There is one class of diseases—in which are included some of the most fatal—which, in the opinion of the writer, will at no distant future be put at the bottom instead of at the top of the list of most prevalent diseases: and that class is the class of infectious diseases. While in a large number of these diseases the specific cause is still unknown, in some of them it is known; and in all, whether the specific cause is known or not, the other etiological factors are known and among these factors the transmissibility of the disease from one individual to another is well recognised.

Many of these infectious diseases occur most frequently among children and unfortunately they are often exceedingly

serious—even when not fatal, leaving sequelæ that tend to handicap the individual in the race of life.

The question arises as to why these diseases are more common among children; and there are three reasons usually given in answer to that question. The first (and it is doubtful whether it be true) is that the resisting power of the growing organism is less than that of the adult; the second is that as most infectious diseases confer immunity from that disease, adults do not take the diseases because they have had them in childhood. There is a certain amount of truth in this reason, but the fact of the recurrence of these diseases when the exposure is sufficient, detracts greatly from its value. The third and most important reason is that great numbers of children are almost constantly exposed to the dangers of infection through their gathering together day after day in the same rooms in schools. If the first of the reasons has truth in it, that the growing organism has less resisting power to the onslaught of infection than the adult, think what a crime it is to expose these non-resisting individuals to almost daily contact with infection when by a little foresight it might be prevented.

There is a period at the beginning of most infectious diseases when there is the least danger of transmission to others, when, however, the physician can readily recognise the disease. This fact is the main basis of the plea for the value of the establishment of a proper daily medical inspection of schools, public, parochial and private. The ideal hygienic inspection of schools would include the investigation of the sanitary state of the school building and its surroundings; the surroundings as bearing on the purity of the outside air in the neighborhood and as bearing on the purity of the morals of the pupils, as for example the proximity of saloons, low theatres or other vicious resorts; the heating, ventilation and sewerage of the schoolhouse; the relation of the light to the pupils in the study and recitation rooms; the condition of the coat rooms where the children hang their outer garments—valuable suggestion has been made that separate wardrobes be provided for the individual clothing—just enough partition to keep the clothes from contact with each other, as a means of preventing spread of infection—and finally the daily inspection of the children to determine whether they are well enough to attend school and whether, if sick, there is danger of transmitting the disease to others. These briefly are the objects to be attained by careful hygienic inspection of

schools. Some of them require the attention of those trained in sanitary science, chemistry and architecture. That which distinctly belongs to the physician is the inspection of the children for the detection of defect or disease.

According to Dr. William D. Byrne, of Chicago, in an article published in the *Journal of the American Medical Association*, November 23, 1901, pp. 1 and 2:

This great aid to prophylaxis was foreshadowed in those admirable German laws which went into effect July 14, 1884, by the adoption of the Prussian Circular to the Royal Governors of Provinces, which concerns the closing of schools in the event of the occurrence of infectious diseases. The diseases and the laws pertaining to them are classified as follows:

1.-*a.* Cholera, dysentery, measles, rubella, scarlet fever, diphtheria, smallpox, typhus, relapsing fever, cerebrospinal meningitis; *b.* typhoid fever, contagious inflammation of the eyes, itch and pertussis (while spasmodic).

2. Children suffering from these diseases are to be excluded from school.

3. Healthy children living in same house in which cases named in 1 exist. Exception: it must then be certified by a physician that the school child is protected from danger of infection by proper separation.

4. Children excluded from school for said causes may be readmitted only after the danger of infection has been removed according to a physician's certificate of the usual duration of the disease has expired. This, in the case of scarlet fever and smallpox, is six weeks, and for measles and rubella four weeks, from its inception. Regard must be paid to the thorough cleansing of the child's person and clothing before readmission to school.

5. For the observance of orders 2 and 4 the principal or headmaster is made responsible. An immediate report of the exclusion of a child from school on account of an infectious disease must always be made to the local police authorities.

6. Refers to isolation of children attending boarding school when an epidemic occurs. It requires a physician's certificate to release them from quarantine, which he will give only when convinced that the danger of spreading disease is past and all precautions have been observed.

7. When any person living in the schoolhouse falls sick of one of the infectious diseases named in 1, or if a case should occur in the household of a school teacher, said case must be reported to the principal and to the police authorities, when proper steps must be taken to isolate the infectious case.

8. When several cases of infectious diseases, as in 1, appear in the locality where the school is situated, the principal and teachers must direct their especial attention to the purification of the school property, to the thorough airing of the class rooms. In particular must the school rooms and sanitariums be

carefully cleansed each day. School rooms are to be aired continuously when not in use and the sanitariums must be regularly disinfected according to the regulations of the district police authorities. This rule applies to boarding-schools and in them is extended to include dwelling rooms, work rooms and bedrooms of the pupils.

9. School rooms and entire schools where infectious diseases appear in epidemic form must be closed when the district physician advises.

10. Reopening is permissible only after thorough previous cleansing and disinfecting of the premises and on the advice of the district physician.

11. These laws apply as well to parochial and private schools, orphanages, asylums, day missions, and kindergartens.

More important than the closing of schools where an epidemic is raging is the prevention of the epidemic through regular daily medical inspection of pupils. According to Dr. Byrne, "the first attempt at this work was made in the parochial schools of Philadelphia in 1889, but was discontinued on account of parental objection. To Dr. S. H. Durgin, of Boston, is due the credit of the first victory in this field. Beginning to agitate the question in 1890, he encountered much opposition but, aided by Dr. C. M. Green, a member of the School Board, he succeeded in overcoming it His important victory dates from November 1, 1894. In March, 1898, the medical inspection of school was regularly instituted in New York, and in January, 1900, in Chicago and Philadelphia." The following is an extract from the report of the Superintendent of Public Schools of the City of Boston, published in March, 1900, pp. 38-43.

For five and a half years past our schools have received the benefit of regular daily medical inspection. Competent physicians appointed by the Board of Health visit all the schools soon after the opening of the morning session each day. Every class teacher reports to the principal, early in the session, on the condition of the children in the class. If any children seem to be ailing in any way the inspector's attention is called to them. He examines them. If a child is found to be ill, but without manifesting any symptoms of an infectious disease, the teacher is *advised* to send the child home, with a message, written or oral, as may seem best, stating what the trouble may be and suggesting, if medical care seems to be needed, that the family physician be called. The inspector does not declare his diagnosis of the case nor give professional advice as to its treatment. To do so would be to encroach on the province of the family physician, a thing which the inspectors are particularly required

to refrain from doing. There are, of course, certain minor ills, pediculosis, for example, not requiring professional advice, for the treatment of which suggestions may be conveyed to the parents directly. Nor would the medical inspector refuse immediate treatment in cases of emergency.

In respect to all non-infectious diseases the medical inspector acts by permission of the school authorities as a friendly adviser. But if he finds a child manifesting symptoms of an infectious disease he at once acts on his legal authority as an agent of the Board of Health; he *orders* the child sent home, and at once reports the case to the Board of Health. He follows the case home and sees that it is properly isolated there, or is removed to the hospital. Later, when recovery is reported by the attending physician, he makes another visit to determine whether all danger of infection has ceased, and whether the patient shall be released from isolation. In all this he is acting under the law and for the public safety.

The great advantage arising from his visits to the schools is the early discovery of symptoms of infectious disease among the children. Such early discovery and the prompt measures thereupon taken have resulted in putting a stop to epidemics that could easily have become, through neglect, widespread and disastrous.

Accounts of epidemics arrested in this way have been published in medical journals. From one such account, written by a medical inspector, I copy a few paragraphs to show how an epidemic of diphtheria was handled. It started in a first (lowest) grade primary class, and had made considerable progress before any cases had become known to the teacher or had been reported to the Board of Health. The inspector, noticing that the first two cases reported to him came from the same school, proceeded at once to investigate. He found the teacher already alarmed by finding on the Board of Health report for that morning two more cases of diphtheria from her class, by rumors, of two or three other cases among the absent children, and by finding three cases of sore throat in the room. The inspector goes on to say:

It was at once apparent to me that we had an epidemic on hand. Four suspicious cases were sent home and recommended to the care of the family physician. The extent of the epidemic was investigated during the day; the Board of Health had arrangements made for disinfection at nine the next morning; the class was allowed to assemble for purpose of investigation, every throat being examined, and a culture taken in all suspicious cases, the class was then dismissed, and the formaldehyde generators set to work at once. This was on Thursday morning. After disinfection the room was cleaned up, allowed to air for two days, and opened for school again on Monday. For a week and a half the throats of all pupils present in the class were examined the first thing in the morning. No child who had any suspicious symptoms was allowed to return until a culture from the throat was found to be negative. As a result of these measures, notwithstanding the fact that the epidemic had made such good headway

before discovery, not a single case of diphtheria developed after the epidemic was discovered except those known to have been infected at that time.

How little protection would come by trusting to the parents of some public school children is shown by their action in the following cases: four cases were sent home at the time of the discovery of the epidemic on the morning of May 5. They all had suspicious looking throats, and in view of the existing epidemic the diagnosis of diphtheria was warranted clinically. With each child was sent a note stating that there had been some cases of diphtheria in the school-room, that the child had a sore throat that probably was diphtheria, and that the school inspector advised calling the family physician. The mother of one of the children brought him back herself in the afternoon and was abusive to the teacher for sending him home. I turned up just in season to get my share. I was informed that I did not know what I was talking about, that his nausea and vomiting and constitutional symptoms two days before were due to indiscretion in eating, that his sore throat was simply "tonsillitis," that he was subject to, and that the patches in the throat were of no importance. The other children might have diphtheria, but *her* boy didn't, "because he wasn't sick enough." She refused to let me take a culture, and was informed that the boy would not be admitted to the school until a negative culture had been obtained by myself, or if she preferred by her family physician. She did not go to the family physician until another week had elapsed and a culture proved negative. I feel reasonably sure, however, that an earlier culture would have been positive.

The three other cases returned next morning. Two brought verbal messages that they were well enough to come to school. The third brought a note from his father saying it was absurd to say his boy had diphtheria. Cultures were taken from all three throats, and all proved positive. The mother of one of these was not convinced even then. She called another doctor to prove that the school doctor was wrong, and discharged him when he obtained a positive culture, and she was only partially persuaded there was no trick to it when a third doctor also found a positive reply to his culture.

One other case is instructive. This boy was subject to tonsillitis, so his parents did not attach any importance to a sore throat which began May 2. He returned May 5 and was examined. His throat was negative. I learned, however, that his brother who slept with him had a sore throat, beginning the day before, May 4, and had stayed at home, but that he also was at school that morning in another room. He was sent for, and I found several characteristic patches in his throat. Thus a possible source of infection of another class was nipped in the bud. Both were sent home with a note recommending the family physician, and stating what the probable trouble was. They did not consult a physician for ten days. Naturally the throats were cleared up then, and the physician, not understanding the full circumstances, gave them a note, stating that they might return to school. Admission was refused until a negative culture was found. They proved positive, and the one from the class-room which had the epidemic lasted positive for two weeks more. Had I allowed him to return without a culture he would have had two weeks in which to start another epidemic of diphtheria, which, while it might have been ascribed to imperfect disinfection of the room, would in reality have been due to my carelessness in taking it for granted that the throat was negative."—H. D. ARNOLD, M. D., in *Annals of Gynecology and Pediatrics*. Vol. XI. Boston, January, 1898

The same writer describes the suppression of an epidemic of scarlet fever which started with a pupil supposed by his parents to be ill with German measles, but found on investigation by the inspector to have scarlet fever.

In respect to infectious diseases, certainly the parents now have reason to feel that their children in school are much better protected than they would be without daily medical inspection. And as regards other diseases the earlier medical attention often secured in consequence of the inspector's visits is recognised as a great benefit. The masters of schools and the teachers have learned to depend upon the advice of the medical inspectors in various matters relative to the health of pupils and the sanitary condition of the schoolhouses.

The return of pupils after an absence for sickness, the attendance of pupils living in the same house, but not of the same household, with a person sick with an infectious disease, the admission of pupils without certificates of vaccination, the fitness as to the physical condition of certain children to be pupils of a school, and defects in ventilation and sanitation of the schoolhouses, are among the matters which receive attention from the medical inspectors, and concerning which they give advice. Generally speaking, such advice is gladly accepted and acted upon.

The following is an extract from the Manual of the Board of Education in reference to contagious diseases in public schools in New York:

1. Whenever the principal or teacher in charge of a school ascertains that a case of contagious disease has occurred in a family in which a child or children attending school lives or live, such child or children shall be immediately excluded from school; and a principal or teacher shall also exclude from school any child or children when notified by the Board of Health that the protection of public health requires it; and said child or children shall not be permitted to attend school until a certificate of the Board of Health is presented, stating that there is at the time no contagious disease existing in the family, and that it is safe for the child or children to attend school.

2. It shall be the duty of the teachers in the high and public schools, at the time of morning roll call, to select from their classes any child who appears to be ailing, or any child who, from any information they have received, they have reason to believe has been in contact, in its family or otherwise, with anyone ill with contagious or infectious diseases. Such children must be separated from the rest of the class, in a room set apart for that purpose by the principal, for examination by the medical school inspector at the time of his visit. The principal and teachers in charge of schools shall aid the inspector in such action as may be deemed necessary for the protection of the health of the other children of the school.

3. Whenever a pupil shall be dismissed from school on account of a sore throat or any eruptive disease, the principal or teacher in charge shall immediately notify the division of contagious diseases of such dismissal, and shall give in the report the name and address of the pupil and the disease causing the dismissal.

4. Whenever reports of the existence of contagious disease shall come to the principal or teacher in charge from other sources than the Board of Health, said report shall be communicated immediately to the division of contagious diseases.

5. New scholars applying for admission to school and living in houses in which a case of contagious disease has recently occurred or is then present, shall be admitted or excluded in compliance with the above rules.

6. The principal or teacher in charge shall make a weekly report to the Board of Health, on blanks provided for the purpose, of the names and addresses of all pupils absent from school on account of sickness of whatever nature, with the disease, so far as known, of those absent.

7. The floors, doors and door knobs, and the stairs and hand banisters of school-rooms shall be washed with a washing soda solution (one-half pound washing soda to three gallons of water) at least once each week.

8. When a pupil is excluded from school on account of any contagious disease, his or her desk and seat shall be washed with the soda solution.

9. Physicians shall be requested to notify the principal of the school which is attended by any person or any member of the family of a person suffering with contagious disease.

10. The division of contagious diseases shall send daily to the Board of Education a list of houses in which cases of contagious diseases have been reported during the previous twenty-four (24) hours, with the names, ages and diseases of the persons sick, and the Board of Education shall transmit such list the same day to every school under their charge.

11. A circular of information for pupils shall be prepared by the Board of Health for the Board of Education, to be printed, framed and hung in every school-room.

12. A circular of instruction for principals and teachers shall be prepared by the Board of Health and printed and distributed by the Board of Education.

By order of the Board of Health.

MICHAEL C. MURPHY,
President.

C. GOLDERMAN,
Secretary pro tem.

In the Chicago instructions "The pupils to be inspected will be referred to the inspector for two reasons: (1) Those who have been absent four or more consecutive days; (2) those in

the school whom the principal may suspect to be suffering from contagious diseases."

In Philadelphia in 1900 the number of pupils enrolled in the public schools was 151,455. From January 1 to October 31, 1900, 3,446 cases of contagious disease were detected and 2,430 cases of non-contagious diseases were detected, *i.e.*, a little over $2\frac{1}{4}$ per cent. were suffering from contagious disease and a little less than 2 per cent. from other diseases, some of which were of sufficient seriousness to imperil the child's health—about 4 per cent. of those attending school were not in fit condition to do so. "The inspectors add that in their opinion epidemics have been averted by the early detection and exclusion of cases of disease and that a large number of pupils have been saved from illness by preventing the attendance at school of the sick, the uncleanly, and the vermin ridden."

In Chicago from January 8 to April 12, 1900, a little over $2\frac{1}{2}$ per cent. of the school population was found suffering from contagious disease and was excluded from school.

Dr. Byrne says:

One of the most disagreeable duties of inspectors is to examine and exclude children afflicted with pediculi. One irate parent whose four children had been excluded from school kept after the writer for a month. During that time he complained to several members of the Board of Education, including its president. He also took the matter to the local alderman alleging every reason but the right one as the cause of exclusion. These men took the matter up but, on learning the truth, referred him back to his school principal and medical inspector. Finally he gave in and saw that his children had proper attention. They became models of cleanliness and were never again sent in for examination on that score."

According to the figures of the Chicago Health Department, as quoted by Dr. Byrne, covering diphtheria and scarlet fever for the year preceding medical inspection of schools and the first year under such inspection, the decrease in the number of cases of diphtheria was 628 and of scarlet fever 2,325, and that, too, in spite of the rapid growth of Chicago.

It is unnecessary to cite the figures from other cities: they all tell the same story and justify the conclusion of the Philadelphia inspectors that by the careful inspection of suspected and the exclusion of the sick from school, epidemics have been prevented and large numbers of pupils have been saved from illness.

This year in Buffalo there has been raging in the schools an epidemic of measles, and what steps have been taken to stop it? The Board of Health has no power in the matter except to exclude from attendance at school those cases reported to it; and all the cases are not reported. The teacher may send a pupil home if he thinks the child sick, but if the parent disagrees with the teacher, back the child comes at the next session. I have heard (uncorroborated rumor) of the closing of one department of one of the private schools for a short time on account of the epidemic, but so far as I know no department of any of the public schools has been closed. Necessarily, then, no disinfection of the rooms—much less of the buildings—has been attempted.

The accompanying table gives some interesting facts upon which it is worth while to ponder.

	No. of Cases of Measles.		Death from Measles.	
	1900-1.	1901-2.	1900-1.	1901-2.
September	2	8	0	0
October	6	24	0	0
November	8	105	1	2
December	16	242	0	8
January	21	415	0	11
February	30	414	0	5
March	61	564	1	15
April	65	547	0	11
Totals	209	2,319	2	52
May	90	208 ($\frac{1}{2}$ month)	3	.
June	161	.	6	.
July	67	.	1	.
August	8	.	1	.

If we take the number of cases of measles reported each month from September, 1900, through April, 1902, we note that from September, 1900, to January, 1901, the [number per month had increased from 2 to 21; that in February it reached 30; in March, 61; and by June had reached 161. Evidently the epidemic had started and we have a most convincing array of figures to show how thoroughly the schoolhouses had become infected, for with the closing of the schools the number of cases dropped to 67 in July and 8 in August. The schools begin in September. The number of cases reported in September was 8; in October, 24; in November, 105, and so on in steadily increasing number, reaching 564 in March, 547 in April and 208 for the first two weeks of May. In all there have been reported from September 1, 1901, to May 1, 1902, 2,319 cases of measles and 52 deaths from measles. In the same period in the previous

year there were 209 cases of measles and 2 deaths from measles. The seriousness of the epidemic, however, is not represented by these figures. Measles is seldom a fatal disease, but it is apt to leave behind it catarrhal conditions of the eye and ear and of the respiratory and gastro-intestinal tracts that are sometimes serious in and of themselves and are especially serious as establishing a most excellent culture medium for the tubercle bacillus.

If the schools are only cleaned and not disinfected this summer, there remains the probability of more measles next year unless all the susceptible ones have already contracted the disease. If, however, so great an epidemic of measles can occur there is nothing to prevent one of scarlet fever with much more serious results or of diphtheria, similar to the one in Boston in 1894, which clinched the matter and induced the school board "to sanction medical inspection as a regular department of school life."

Is it necessary to wait for such a calamity, to sacrifice the health and jeopardise the lives of thousands of children before the proper steps are taken to prevent the occurrence of such epidemics? To recognise that a disease is infectious is to recognise that the spread of it is preventable. If preventable, there is no excuse for epidemics in modern civilised communities.

At the beginning of the establishment of medical inspection of schools there is always opposition on the part of some as there is to every reform movement, but when the people recognise the value of the inspection, often those who were most opposed are the staunchest supporters of the system.

In Chicago out of 76,805 examinations only one lawsuit instituted against the Board of Education by parents resulted, and in that instance Judge Ball of the Superior Court decided that the medical inspection of schools was constitutional and the rights of principals and medical inspectors to exclude pupils for cause were upheld. The case was never appealed.

Medical inspection has proved a great safeguard for the health of the children in Chicago public schools. The service has been handicapped by a limited number of inspectors and an inadequate appropriation to increase the force. By increasing the force the service could be improved, as inspectors now have too many schools to look after in their sub-districts.

The cost of the inspection is relatively slight considering the value of the result. In Chicago the figures of the Health Department, besides showing the reduction in number of cases already quoted show further that there were 46 fewer deaths from diph-

theria and 307 fewer deaths from scarlet fever during the first year of inspection than in the preceding year when there was no inspection, 353 fewer deaths from these two diseases. If the low estimate of \$1,000 is placed on a life we may say that, largely through medical inspection of schools, there was saved to the City of Chicago from the prevention of those two diseases only, the sum of \$353,000.

The pay of the medical school inspectors in Chicago is \$50 a month and their number is fifty, making a total expenditure of \$2,500 per month or \$22,500 for nine months. Remember that the figures quoted are for only two diseases. When we think of the other diseases and the other deaths prevented the cost of maintaining inspection is as nothing to the amount saved to the city through the maintenance of the system. As Dr. Byrne says: "To cover the ground properly a man must devote his entire working morning, from 9 a.m. to 12 m. to the service, each inspector visiting from 5 to 8 schools."

If the work is not done thoroughly it might as well be not done at all. Under the circumstances \$50 a month seems a minimum fee and is certainly well earned. In Boston, however, there are fifty inspectors, appointed by the Board of Health, each of whom receives \$200 per annum—about half the Chicago salary. There is a greater value in human life, however, than can be estimated in dollars and cents. No one knows that better than the physician who also knows well that in all human beings there is some good and in most human beings the goodness overbalances the evil mightily.

"Sana mens in corpore sano" should be the motto of all conscientious educators, and in their care of the children placed under their charge they should recognise the fact that if the moral goodness of the individual is to overcome any tendency to evil, the victory is much more easily won if there is a sound and healthy body in which and with which the soul may work. Therefore, the development and maintenance of the physical well-being of the individual is as much of our duty toward God as of our duty toward man. To love our fellowmen and to do unto others as we would they should do unto us is still the foundation of all true civilisation. It is our bounden duty, then, to provide for the maintenance of the health of the children, all possible safeguards by establishing the means of prevention of disease through the regular, daily medical inspection of schools.

Dr. F. Park Lewis, of this city, has already brought the matter to the notice of the clinical society and his paper was published in the *Sunday Express* a short time ago. For much that is of value in this paper I am indebted to him, as he put in my hands all the material he had collected, as well as his own valuable contribution. Can we not as physicians bring to the notice of the public the importance of this subject and thus through the pressure of public opinion bring about the establishment of medical inspection of schools in our city?

It has been said that "All things come to him who waits." Recognising some truth in that statement, let us pursue our enquiry a little further and learn *why* all things come to him who waits. It is because there are others who with restless energy are pursuing their ideals in the hope and firm belief of realising them. The waiter, with the others, enjoys the benefits obtained through the efforts of the worker.

"Let *us* then be up and *doing*,
With a heart for any fate,
Still achieving, still pursuing,
Learn to *labor* and to wait."

469 FRANKLIN STREET.

Gunshot Wounds by the Old and New Armaments.

By MAJOR L. A. LA GARDE, M. D., Washington, D. C.,
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IN SPEAKING of the modern projectile I shall confine my remarks to that of the hand-weapon class, in contra-distinction to that of the artillery arm. Speaking generally, gunshot wounds, when so specified, have reference to the lesions inflicted by the former for the reason that they inflict on an average over 90 per cent. of all wounds in war.

Before we enter upon the effects of the modern bullet into the tissues it may be interesting to discuss its origin and the causes that led to its adoption. At the onset it may be stated that the modern reduced caliber projectile as we know it today as an engine of warfare, was largely the result of accident.

When the modern tactician became possessed with the rapid means of transporting and concentrating troops, he called upon the ballisticians to give him a weapon that should fire the greatest number of shots possible in a given space of time. The mili-

tary weapons of two decades ago were capable of delivering twenty shots per minute in expert hands. A good example of this class is the Springfield rifle, which we discarded in 1893. It fired an elongated bullet of .45 calibers, made of lead hardened by antimony, weighing 500 grains. The explosive conferred upon this missile an initial velocity of 1,301 foot seconds, and the twist in the barrel—one complete turn in twenty-two inches—gave it a velocity of rotation of 800 turns per second at the muzzle. When fired into unseasoned oak against the grain, three feet from the muzzle, it penetrated five and one-half inches.

In casting about for a more effective arm or one having a greater rapidity of fire, the gunmaker was at once confronted with the fact that the soldier was already loaded to the maximum. To burden him with more cartridges was simply out of the question, thus it was that the attempt to reduce the caliber and thereby the weight of the ammunition per round was attempted. That the attempt succeeded is shown by the fact that for the same weight the soldier carries nearly twice as much of the new ammunition as he did of the old.

But how does it happen that this effective little bullet that has helped to revolutionise the subject of gunshot wounds became a creation of accident? As already stated, the gunmaker reduced the caliber in order to multiply the number of rounds per man. This reduction in caliber of the rifle added to the difficulty incident to fouling from the unconsumed residue of the old black powder, a circumstance which led to the use of those nitro-compounds which we know under the name of smokeless powders. These powders afforded a great advantage in that they left little or no residue in the barrel, and further it was found they conferred a greater initial velocity, as the gases which they evolve issue in proportionately larger volume. This increase in velocity, most desirable in itself, added quite a complication. The lead bullet, instead of keeping point on, tumbled, that is, it soon lost its stability in flight and went on end over end, to prevent which a shorter twist was given to the rifling. Instead of one complete turn in twenty-two inches, as described in the old rifle, the twist was shortened to one in ten inches. The lead bullet became refractory under the bidding of such a sharp turn. Instead of following the new twist, it stripped through the barrel without revolving properly, a difficulty which was finally obviated by enclosing the lead with a mantle of harder metal like copper, German silver or hard

steel, so it is rather by accident than design that we have the steel-jacketed reduced caliber bullet in use by the nations the world over; a bullet that does not deform on impact against the most resistant structure in the body, that travels at the rate of 2,200 foot seconds, and that describes 2,400 turns per second at the muzzle and which is capable of penetrating nineteen and one-half inches of unseasoned oak when fired into at three feet from the muzzle; it appears further that forty of those projectiles can be delivered per minute from a repeating rifle.

This projectile has done more to influence the outcome in gunshot wounds than any other one thing save antisepsis. It has been most appropriately termed a humane bullet, but mind you, it was not the purpose of the ballisticians at the onset to invent a humane bullet. He stumbled along in his search to multiply the shots per man, as I have tried to explain, and after overcoming a number of obstacles, his efforts were rewarded with this effective missile. The humane effects of the bullet came about as though a ruling Providence had hovered over his efforts to guide men, to help lessen the carnage of battle and to make war more endurable. It is not the province of the ballisticians to employ considerations of humanity when he fabricates the engines of warfare. His aim is to destroy and not to build up. He does it all in the interest of the state, for the sake of patriotism. To alleviate the suffering of the hero, to make war more humane, to reduce to a minimum the pain, the loss of life and limb is the mission of others. That is the mission of our proud profession, so lofty in its aims for the public welfare, to which the medical department of all armies belongs. It is our special privilege to go to war for the sake of patriotism and the lofty considerations of humanity as well.

When our government contemplated a change in its armament, now ten years ago, I was fortunate in receiving the detail to test the efficiency of the new arm. The work was done by firing into ten cadavers with simulated velocities with the new and the old bullet. As a broad principle it may be stated that the lesion inflicted was, as a rule, proportional, first, to the velocity and sectional area of the bullet, and, second, to the resistance which it encountered on impact.

From the evidence obtained in our experiments we gathered that the claim made in favor of the little bullet was well founded. The experimenters naturally awaited the test of battle with great interest. The first opportunity on a sufficient scale

occurred in the Spanish-American war and next the Anglo-Boer war. I will contrast our experimental work with what I observed in Cuba as follows:

Eleven conclusions:

1. The experimental evidence showed the shock impressed upon a member increases with the velocity whether a bone is traversed or not. It is always greater with the leaden projectile.

This diminution in shock was one of the serious objections advanced against the adoption of the small bullet by military men. They feared that one wound would not suffice to throw a man *hors du combat*, and that he might be able to go on fighting regardless of the fact that he had been hit a number of times. Whether this is true of savage tribes, or horses in a cavalry charge, it is not true of our American soldiers. Upon inquiry among the line officers in the Santiago campaign I find that, as a rule, to which there are very few exceptions, men when hit fell back to the rear at once; and I can testify to the fact that scores of them walked back to the hospital at Siboney with wounds that were most trifling in their nature.

2. The explosive effects at very short range are about the same for the two projectiles. They continue, however, up to 350 yards with the smaller bullet and cease at about 200 yards with the leaden bullet.

I only saw one case which approached anything like explosive effects in Cuba. That was the case of a captain of the Rough Riders shot in the lower third of the tibia. The wound of entrance was about the caliber of the Mauser bullet that had inflicted it, and the wound of exit was irregularly round, a half-inch in diameter. There were two smaller wounds near the wound of exit, which were undoubtedly made by spiculæ of bone which had been driven forth, acting as secondary missiles. The area of fracture was about four inches above the ankle; it was marked by a cavity in which many loose fragments of bone lay, none of them measuring more than a half-inch. The wall of the cavity showed bony sand driven into the soft parts.

3. The experimenters found that the smaller frontage of the jacketed bullets causes them to inflict injuries resembling subcutaneous wounds when the soft parts alone are traversed, and that the small wounds of entrance and exit and the narrow track of the missiles were favorable circumstances to rapid healing.

The truth of this statement is borne out by the experience of

all surgeons in the Santiago campaign. Flesh wounds healed very kindly and rapidly.

4. The next conclusion of the experimenters refers to hemorrhage. The blood-vessels are seldom torn by the small jacketed bullet, and when wounded they are not closed so easily by coagulation as those severed by leaden projectiles.

Some writers have deduced from this statement that alarming or fatal hemorrhage would be more frequent in future battles. The experiences of the surgeons with the line before Santiago do not confirm these apprehensions. Of the 1,400 wounded, as far as I can learn, not one died of external hemorrhage. The brachial and femoral were tied a few times in the base hospital for diffuse aneurism. One case of wound of the subclavian was operated upon in New York and died after the operation. There were five cases of gangrene from injury to blood-vessels which required amputation.

5. Injuries inflicted outside the zone of explosive effects upon the shafts of the long bones always show less comminution with the small bullet of hard exterior. The fissures are often subperiosteal and the fragments are larger.

This was true of the Mauser bullet wounds in Cuba. It was seldom necessary to open up the wounds for the purpose of taking out loose fragments of bone. In a number of instances there was distinct guttering of the compact substance of long bones without fracture. The mobility in some instances was so slight that it was difficult to make out a complete fracture when from the location of the wounds it was certain that the bone had been traversed.

6. The projectiles of hard exterior lodge less frequently in the tissues than the old leaden bullet.

The experience at Santiago among the wounded of both sides has shown a surprisingly large number of lodged balls. Although I am not prepared to state that the small caliber bullet lodges as often as the old discarded leaden bullet, the frequency with which it did lodge was remarked upon by military surgeons generally.

Dr. W. E. Parker, of New Orleans, an acting assistant surgeon in the base hospital, visited the Spanish hospitals in Santiago after the surrender, and in conversation with the Spanish surgeons he learned that our Krag-Jorgensen bullet had not lodged in their wounded as often as their Mauser bullets had lodged in our men. The explanation for this would seem simple

enough. It should be remembered that we were on the aggressive in a region that was practically unknown to our troops, whilst the Spaniards were perfectly familiar with every foot of ground over which we must make the advance. As trained soldiers their officers had carefully studied the range at every point. With this valuable information in their favor they were in a position to commence an effective fire at remote ranges, say at 2,000 yards and more. We could not locate them as soon as they located us, and when we did locate them we had to study the range before we could commence an effective fire. It was while we were locating them and studying the range and gradually advancing that they placed so many balls into our soldiers. When we did commence an effective fire we had reached a point where the remaining velocity of our bullet on impact was sufficient to carry it through the body.

There is another explanation which may be gathered from the difference in the energy of the two bullets at remote ranges. Our bullets being larger and heavier than the Mauser have greater energy at 2,000 yards and will penetrate farther in the remote ranges than theirs. Again, ricochet shots, from the thick underbrush and broken ground, undoubtedly favored a certain percentage of lodgment. Many of the officers attributed the lodgment of projectiles to the use of defective ammunition used by the enemy. This point was so susceptible of proof that I instituted experiments to show the relative penetration of the Mauser and Krag-Jorgensen rifles. The tests were made in large blocks of well-seasoned yellow pine fired into, across the grain, three feet from the muzzle. The penetration of the Krag-Jorgensen ammunition was 24 inches plus, whilst that of the Mauser ammunition exceeded ours by nearly 10 inches, a demonstration which at once set at rest the idea of lodgment from the defective ammunition of the enemy.

7. The old leaden bullet more often leaves fragments of lead in the foyer of fracture.

This is so true that it needs no contradiction. The leaden bullet was so soft that it often separated into a number of fragments upon striking resistant bone, whilst the steel-jacketed bullet seldom encounters resistance enough in the human body to disintegrate it.

8. As the projectiles of smaller caliber are less apt to lodge or to carry foreign substances into the wounds we will expect to find fewer cases of suffering due to the remote effects of unextracted foreign bodies.

This is true of the smaller bullet, as shown in Cuba. There were but few instances where clothing or part of the equipment was carried into the wound.

9. The frontage of the jacketed bullet being much less and the fact that it does not lodge as often as the larger leaden bullet will contribute to increase the percentage of recoveries in gunshot wounds of the lungs.

That was especially true of the wounded in Cuba. As a rule the wounds of the lungs were apparently so trivial that it was difficult to restrain the men in a recumbent posture. The mortality now is but 27 per cent. as compared to 60 per cent. in the Civil War.

10. Beyond the zone of explosive effects the projectiles of hard exterior almost invariably perforate or gutter the joint ends of bones, and the lesions of the articulations are never so grave.

This conclusion tallies exactly with what we saw in Cuba. I do not recall a formal excision of a joint for the mechanical effects of the Mauser bullet. Joints were opened to turn out blood-clots, and in one instance of the knee I particularly remember, to locate a lodged ball, but never for the purpose of performing an excision. There were at least twenty cases of gunshot injury of the knee-joint alone. These were immobilised and shipped north; and as far as I have been able to ascertain they have done well. These results are a great contrast to those inflicted by the larger leaden bullet, which by its highly destructive effects must have caused a number of resections and amputations.

11. The projectiles of hard exterior are more humane than the old; resections and amputations will not be so often required hereafter; soldiers will be more often restored to the state useful members of the community instead of cripples and pensioners, and in point of economy, the new projectile confers a great advantage.

This last conclusion is also in accordance with the experience in Cuba. There were but three primary amputations and not one of them was done for injury by the small bullet. They were all the result of shell injuries. From the foregoing I believe we should conclude that the work of the experimenters agrees with the conditions found in war, and that their work was not done in vain.¹

SOLDIERS' HOME, WASHINGTON, D. C.

1. Read and illustrated with the stereopticon at the 27th annual meeting of the Alumni Association, Buffalo University Medical College, May 2, 1902.

Alcoholism ; Its Control and Cure in Sanatoriums.

By GEORGE H. McMICHAEL, M.D., Buffalo, N.Y.

THERE are probably as many proposals for the solution of the liquor problem as there are sides to the question. As the evil is to some extent one of the peoples own choosing, it has been suggested that a popularly elected body for the control of the sale of intoxicants would have the effect of doing away with as much of it as would be found to be desirable. Some people profess to believe that the poor quality of the alcoholic beverages on sale in the saloons has much to do with what we know as excessive drinking, and they assert that by the prevention of adulteration and by the enforced maturing of spirits a great amount of inebriety might be stopped. This view is not held by scientific men and is not tenable, because it is the ethyl alcohol in all intoxicants which produces drunkenness, and well-matured whiskey is as powerful an intoxicant as any new liquor that can be obtained. Further, in some cases "bad" whiskey and "poor" beer are comparatively harmless as they have been largely diluted with water before being sold.

A second class of reformers says that no more need be done than simply to enforce the law as it at present exists, and drinking to excess would soon be a thing of the past. This remedy, however, involves a technical definition of what constitutes "excess," and it ignores the all-important fact that alcoholism is something more than a bad habit.

A certain number of persons advocate total prohibition of the sale of liquor whether the majority of the inhabitants wish it or not, and these gentlemen are not averse to a sacrifice of the opportunities of the many in order to save a few excessive drinkers. As is now well known, legislative experiments outside New York State have shown that prohibition has little practical result, and leads to a considerable amount of illicit drinking, which is obviously objectionable.

As the law now stands in this state (N.Y.), excessive drinkers are regarded as criminals, and are usually sent to prison, when they are not able to pay a fine. Some of them, however, are committed to the lunatic asylums now known as "State Hospitals," where they derive no more benefit than those sent to the penitentiary, because they receive neither medical nor moral treatment. They are simply detained for a period, and are then discharged as "not insane"; and they usually resume their

drinking habits as soon as they are outside the asylum. Compulsory abstinence alone has never cured alcoholism—and never will. My idea of the detention of excessive drinkers,—reputable persons, who have not been guilty of any crime,—is not the idea carried out at the prison or the insane asylum. I propose to describe it in detail hereafter, but at this point I may mention the general mode of treatment which I have adopted for a number of years and which has proved eminently satisfactory. Briefly stated, it consists of suitable medical attention specially adapted to each case,—for there is no specific for alcoholism, any more than there is for other diseases of the nervous system,—proper diet, baths, and general hygienic measures, in addition to such moral influence as will control the patient's actions during his daily exercises, and semi-freedom until the time when he becomes able to take care of himself. The assistance of carefully selected attendants is, of course, necessary.

There are, and have been for years, a number of scientific men, chiefly physicians, who consider that the only way to deal with alcoholic inebriety is to face the undoubted truth that excessive drinking is a disease—not a mere bad habit—and that it can be cured by medical treatment, always provided that the patient is placed in a sanatorium where he will have proper care, suitable surroundings, and a satisfactory diet. For fully twenty years, the medical profession has told the public that there is a period in all excessive drinking when the vice becomes a disorder, when the alcoholic should be called a patient, and when he can no more be held capable of choice or of self-restraint in the matter of drinking than an epileptic can be supposed to be capable of avoiding a fit by an effort of will-power. Accordingly, it has been and is the recommendation of science and of medicine that the drinker should be cared for in a sanatorium where only this class of patients is treated. If I have repeated somewhat frequently the necessity of sanatorium treatment, I have done so in order to make it plain that alcoholism cannot be cured unless the patient lives in the house with the physician under whose care he is.

The law of the State of New York in regard to inebriety is most unsatisfactory. A statute is needed which would enable the friends of alcoholics to obtain medical treatment for them, if they are unwilling to submit voluntarily to it. The county judge or any supreme court judge, ought to be empowered to grant an order upon the certificate of any duly licensed physician,

requiring the patient to remain in a sanatorium for one or two months, during which time he would be regarded as a sick man and treated as such. This method would stop the drinking to excess of a certain number of persons who cannot, at present, be restrained by law, and who persistently refuse medical aid in any form. They are unable to cease drinking of their own will, and yet they cannot believe that they are suffering from a serious disease. The "control" of which I have written should take the form of a suitable companion or nurse who would accompany the patient in his walks and daily exercises, so long as he was unable to take care of himself. My experience is that as soon as the excessive drinker realises his condition, and finds that his health has been benefited by his brief stay of a month or two at a sanatorium, he regains his normal self-control and feels and acts as a man among men. It is to the credit of alcoholics that when they are under treatment they pay every attention to the necessary details and are anxious to get well.

My belief is that a court order to compel an excessive drinker to take treatment would not be necessary in most cases, because I feel confident that just as soon as the state recognises that alcoholism is a disease, and provides a law for the advantage of those who suffer from it, the inebriate will understand the position in which he is placed, and will voluntarily accept the advice of his friends to take treatment at a sanatorium for his own good, and without resort to coercive measures. It is true that today many good men hesitate to place themselves in the hands of so-called "specialists" who profess to treat alcoholism, and the reason is not difficult to find. Experience has shown that these "specialists" give every patient the same stock prescription without individual attention or hygienic measures. In some instances the "treatment" consists simply of a certain number of hypodermic injections for a fixed number of days, in exchange for a certain amount of money. No words are strong enough to condemn this process, which has done so much to bring the treatment of alcoholism into disrepute. The persons who are guilty of the practice are not infrequently itinerants, and their stay in any town or city is usually short. It is not surprising that they have failed to secure the confidence of intelligent men. I would go so far as to suggest that sanatoriums for the treatment of alcoholism should be licensed by the state, and that such institutions should be regularly inspected,—perhaps four times a year. If this were done, good results would soon

be obtained, and a permanent benefit would be quickly felt in every circle in which a patient had been cured.

Alcoholism is a disorder which kills its victim surely, but quite slowly, and during its course it brings much misery to the sufferer, to his family, and to the community in which he lives.

As it is certain that the children of excessive drinkers inherit a predisposition to fall victims to the disease to which their parents were predisposed before them, it is most important that these boys and girls should be protected from the example of a domestic environment in which drinking habits are prevalent. As we cannot at present interfere with the right of any man to marry and beget children, the proper remedy for the evil is to take the drinking parent away from his home until such time as he is cured, even if he is at first unwilling to be separated from his family.

I am probably well within the mark in saying that for one man who is born with the alcoholic susceptibility there are three who are educated to excessive drinking by their environment.

Fortunately, the educational influence of scientific treatment is almost certain not only to cure such men, but also to immensely increase their children's chances of overcoming the inherited predisposition.

If efforts were made to carry out successfully such a statute as I have suggested, time would undoubtedly prove the necessity of extending the period of detention of those for whom a few months' treatment are found insufficient. Still later, perhaps a statute might be necessary which would provide for the detention of all persons who have come before a court as a result of crimes committed under the influence of drink, or to which drunkenness has contributed, and for a similar detention of all offenders who have been convicted three times in any one year of acts of drunkenness which the law regards as offences. This system would be of permanent benefit to the patient himself and to the taxpayers, which is far more than can be said from the existing system. As I have already said, as the law now stands, the habitual drinker returns to his former way of living just as soon as he gets out of the penitentiary or the asylum.

The general effect upon the community of the scientific treatment of alcohol seen among all classes would be most beneficial. As a result, posterity would have to bear the greater part of the blame for its drinking habits, because the present generation

would have taken the necessary precautions to cure, wherever possible, those who would be looked back upon as "drinking ancestors," if such method had been adopted.

New York State, the Empire State of the Union, ought not to lag behind in any matter which is of vital importance to the people. It is no exaggeration to say that there are no problems which equal the drink question in its far-reaching effects. The legislature ought to deal with the subject without delay, for the evil is increasing every day, and will continue to increase until some measures similar to the one outlined in this article is placed upon the statute book.

75 W. TUPPER STREET.

Treatment of Prostatic Disease by Hot Solution.

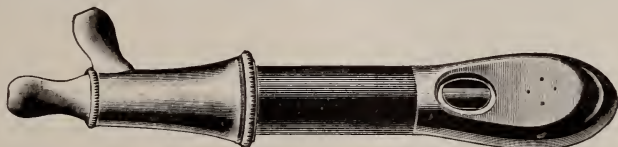
By J. HENRY DOWD, M.D., Buffalo, N.Y.

THE beneficial results of heat and cold in the treatment of inflammations need scarcely any mention; yet a word or so may be of value as to the application of these agents, especially the former in musculo-glandular tissue, such as the prostate, where the greatest benefit is to be derived. Until recently when Dr. Guitéras, almost simultaneously with the writer, introduced an instrument which brought the solution in direct contact with the part, all similar applications of heat were made with a closed tube, producing what is known as dry heat. It may be granted that heat was produced, but not that variety that invites or facilitates absorption of inflammatory exudates. Furthermore, where the solution is brought in direct contact with the part we have not only the moist heat, but osmosis takes place, an indispensable requirement in the treatment of these conditions.

On the other hand, and possibly the most important improvement as far as the patient's comfort is concerned, is the application to the tube of hard rubber covering, where it is grasped by the sphincter muscle. This being practically a nonconductor of heat, renders this mode of treatment almost devoid of physical pain to the patient, the one great objection to the psychrophore of Winternitz. Although water alone is very beneficial, much better results are produced and osmotic action favored if some substance is added, preferably salt, such as normal salt solution (a dram to a quart of water) and used at a temperature of 100° to

110°F. Mechanically speaking, heat dilates and a congestion takes place, more blood being brought to the part.

It must now be our aim while the part is returning to its former condition to promote, as far as possible, absorption of the inflammatory exudate; or, plainly speaking, make the



DOWD: NEW PSYCHROPHORE.

returning blood pick up and carry away the intravascular and intracellular exudate. For this reason it is advisable as soon as the tube is withdrawn to insert a suppository, the following being the writer's favorite:

R	Ichthyol	gtt. ij.
	Ext. bellad.	gr. $\frac{1}{4}$.
	Ext. hyoscy	~~5i~~ gr. i.
	Potassi iodide	gr. i.

M. One suppository for the rectum.

Briefly speaking, the following diseased conditions respond most rapidly to moist heat and the use of suppositories: chronic parenchymatous prostatitis; chronic follicular prostatitis; exacerbations of inflammation in hypertrophied conditions; sexual neurasthenia, accompanied by hysterical prostate; chronic inflammation of ejaculatory ducts and vesicles.

The following illustrative cases are presented:

Case I.—Consultation with Dr. J. F. Meyer. July, 1896, A. J., aged 36; married; gives following history: gonorrhea first time in 1885; second, three years latter. Stricture cut by a Buffalo surgeon in 1887. Before gonorrhea seminal emissions in excess; masturbated when young. Now complains of pain above the pubes, fulness and pain in perineum, pain on defecation, shooting pain in testicles, erections cause agony, pain at coitus and ejaculation makes him sick for a week. Urinates normally during the day, once at night and following the stream is a glary fluid. Some pus in urine. Endoscope shows two or three congested spots in the anterior urethra. Examination per rectum shows: prostate enlarged, especially right lobe, vesicles normal. Patient in a marked state of neurasthenia; claims cannot attend to business as he cannot sit or stand for more than half an hour at a time.

The hot solution was ordered used nightly for half an hour at each sitting and suppositories of ichthyol, etc., to be inserted

thereafter. Patient put upon arsenauro for nervous system and advised to give up city life and go into the country. Steady and uninterrupted improvement followed, and he reported six months afterward, no pain of any account, erections now cause but very slight pain and coitus pleasurable, without after-effects.

The prostate has been normal in size and practically no treatment has been given for four or five years. This man had suffered agony for eight years.

Case II.—Consultation with Dr. Edward Clark. Sept. 28, 1899, J. W., aged 52 years; married; about three weeks before this man was seized with sudden retention of urine which has since continued; morning temperature, 100 1-5°F.; chills last night. Examination per rectum reveals prostate very large and tender, but no perceptible spot of fluctuation. Advised catheterisation every six hours with hot solutions by rectal instrument morning and evening, a suppository of ichthyol, according to formula, to be used after each treatment.

Urine commenced to drip after using the instrument five times, and in twelve hours a good stream could be passed. Previous history showed that he had been obliged to urinate from three to five times nightly for the past four years, but never had an attack of retention before. Urinary examination was as follows: specific gravity, 1015, acid, very opaque, indican increased, albumin, pelvic, bladder and posterior urethral epithelial cells, with plenty of pus cells, which are seen in clumps. A year previous to this the urine had been examined by Dr. Carpenter who found the patient had pyelitis.

Case III.—Consultation with Dr. C. J. Reynolds. February, 1896. B. E., aged 35 years; married. Gonorrhea once in 1881 or 1882, lasting five weeks. In 1895 cut for strictures, being told there were three. Pains over pubes, very nervous; masturbated when young to excess and until a year ago frequent emissions; no trouble with erections and found no obstruction in urethra. Examination per rectum reveals prostate normal, not tender, but right vesicle as large as his thumb. Stripping the vesicle brings away pus in large quantities. Patient was put on tonic treatment with sounds and stripping of the vesicle every five days. Excepting the general improvement no change was noted, the vesicle remaining about the same in size. After this treatment for some time the hot solution was used and almost immediate results were noted, *i.e.*, the vesicle after a couple of weeks became normal in size and in two or three months the patient was discharged well.

This case is reported simply to show the great value of heat or cold when applied to a condition calling for either of these agents:

Case IV.—Consultation with Dr. E. M. Dooley. October, 1896, S. J., aged 43; married. About twelve days after the onset of an acute gonorrhea he noticed that urination was

increased to every hour and a half by day and about twenty times at night. Sedatives were used with no result, when the patient was sent to me. The case was diagnosticated as follicular prostatitis and the psychrophore used with ice water, a 1-15,000 solution of silver being thrown into the bladder. Improvement was like magic, the patient having to get up but once that night. Had this been a chronic condition or an acute parenchymatous involvement, the cold water would have been of no avail.

There is but one contraindication to the use of the hot spray—a wrong diagnosis. If results are to be obtained, this instrument must be used in cases where it and nothing else is indicated.

378 FRANKLIN STREET.

CLINICAL REPORT.

Genitourinary Cases.

From the services of Dr. J. A. GARDNER and Dr. NELSON W. WILSON, Buffalo, N. Y.
Genitourinary surgeons to the Emergency Hospital.

LARGE STONE IN THE BLADDER.

THE chain of circumstances leading up to this young man's admission to the genitourinary department of the Emergency Hospital was so unique that it attracted more attention during his recital than his apparent condition. He is 22 years old, single and an upholsterer. He came into the hospital complaining of constant pain in his bladder, a sense of soreness through his penis, and a constant desire to urinate which was unrelieved by the few drops of urine which were expelled from time to time. He was pale, emaciated and shaky, his eyes sunken and his lips cracked and dry. His appearance was typically that of a tubercular patient en route to the grave. His discouragement was deep, he looked upon himself as hopelessly lost to health and was possessed of a deep-rooted fear of impending death. The first questions regarding his family history revealed the hopelessness of his own views of his case.

"Ain't no use asking me nothin' about my folks. They none of them never had anything like this. They are all healthy. I'm the only one that's no good, and I been trying to get better for five years and I've had more than ten doctors fixing me up all the time. It ain't no use. All I want fixed now is my blad-

der so I can make water without wantin' to and not bein' able to all the time."

Persistent questioning brought out the facts that his father had died at 40 of pneumonia, his mother at 47 of fatty "regeneration" of the heart; three brothers and two sisters are living and all are well. Five years ago the patient first noticed genito-urinary trouble. There was considerable scrotal itching and frequency of urination with some pain at the end of the act. He went to a doctor who gave him medicine which relieved him temporarily. With the return of the trouble a few days later he went back to the doctor and was informed that he had gonorrhea and was given pills and an injection. He juggled back and



Fig. 1. The stone. Natural size. (The horizontal line is where the stone was cut through.)

forth with this treatment for the greater part of a year until the pain began to run up his back to his kidneys and the desire to urinate became so frequent that he was kept busy the greater part of the day and night in a vain endeavor to empty his bladder. Then, too, the pain got so bad that he would have to stop walking and rest until the paroxysm passed or eased down. About this time he made up his mind that the doctor did not know what to do for him. This view was corroborated by the "eminent specialist" whose advertisements in the daily newspapers give "comfort to countless thousands," who told him he was suffering with "loss of manhood and stricture of the blad-

der," and that the only thing that would give him relief was a certain medicine and treatments at so much per month according to a sliding scale. That looked fair to the suffering patient and he took the "road to health and happiness," which ended when he noticed drops of blood at the urinary meatus at the end of micturition. He abruptly quit the man who "cures to stay cured" and transferred his allegiance to the "friend of suffering mankind," whose consultations are free and who charges "a small fee for the medicines."

Here it was discovered that the patient had "weakness of the kidneys and bladder trouble." For some months he poured



Fig. 2. Section of the stone showing nucleus and concentric growth.

into his system the medicines for which *small charges* were made. He took pills and powders and liquids and pretty nearly everything else, according to his description, except hair tonics and corn plasters. As the symptoms which originally disturbed his peace of mind and bodily comfort were aggravated by time and lack of treatment he lost faith in his medical adviser and numbered himself among the hosts of devotees at the shrine of the electric belt, "the gentle current of which passing through the kidneys night and day" would soon effect a cure. Strange to say as soon as he got the belt on all his symptoms disappeared and he felt quite different. This lasted for something like five

minutes. The belt lasted about a month and then when a particularly free flow of blood alarmed him he cast it aside and spent the next six months endeavoring to drink up all the kidney cures he could get his hands on. He became an omnivorous reader of the daily newspapers; medical advertisements filled his pockets and he lived in hopes, but got worse with each bottle. He finally landed in a hospital in this city where his trouble was diagnosticated as stricture of the urethra and sounds were sed. It is only fair to state here, that the diagnosis was made by an interne who neglected to refer the case to the attending surgeon at any time during the three days the man was in the hospital ward.

The patient went home to die after leaving the hospital and was sent to the genitourinary department by Dr. Dorr, attending physician at the Emergency, who suspected stone.

On entry the man's symptoms were: frequency and urgency of urination with expulsion of a few drops at a time; desire and tenesmus constant; hematuria and pain at the end of effort at urination. Pain sharp and burning and referred to the rectum and above the pubes. Urine ammoniacal, cloudy and heavy with pus and mucus; after straining at stool a thick white discharge would issue from the urinary meatus. Temperature, 102.1; pulse, 128.

Cystoscopic examination was negative because of the blood and cloudy bladder contents. A Thompson searcher revealed a large stone on the right side of the bladder. The patient was prepared and operation done the next morning. The bladder was irrigated with boracic acid solution and a rubber bag inserted into the rectum and filled with eight ounces of boracic acid solution. The same amount of solution was introduced into the bladder and retained by clamping the penis with a Wilson-Gardner clamp. A vertical incision 4.4 c.m. was made above the pubes, carried between the recti muscles down to the perivesical space. The fat was pushed up with the fingers and the bladder exposed, opened and anchored with silk sutures. On exploration with the finger the stone was found attached to the right side of the bladder and was loosened and removed with forceps with difficulty. Owing to the dirty condition of the bladder, packing of sterile gauze was used and dry dressing applied. This dressing was changed every two hours. The patient made an uninterrupted recovery and at no time after the operation was his temperature over 100°. The stone is

mulberry shaped; weighs 112.50 gms., is 6.2 c.m. in length at the widest part and 3.1 in width. The specimen shows beautifully the formation with its nucleus of uric acid and concentric layers of phosphates.

SOME OF THE EFFECTS OF MASTURBATION.

A case which has been under treatment at the hands of a general practitioner for several months was sent to the hospital for examination and diagnosis. The patient is 19 years old, had frequent urination with dull pain over the pubes at beginning which "gradually faded away." Some months ago there had been a trace of blood. Examination shows normal testicles and cord; no pain on pressure anywhere externally. Penis flabby, with long foreskin. Internal examination: tender urethra; bladder, clean; prostate, enlarged and slightly tender; right seminal vesicle distended. There was no history of venereal disease. No sexual intercourse for the past eighteen months. Vesiculitis and subacute prostatitis due to masturbation was the diagnosis. The patient was put on belladonna and opium rectal suppositories with neurosine internally. Later the vesicle was stripped and the prostate massaged and he was circumcised. He was plainly advised of the dangers of auto-orgasm. All symptoms have disappeared and he is cured.

THE BEST METHOD OF INFANT CIRCUMCISION.

In eighteen infantile circumcisions, the eldest child being between 3 and 4 months old and the youngest 18 hours, the open and closed methods were alternately used. In the former there was no suturing done, the prepuce being merely trimmed off back of the glans and the wound being left open. All bleeding points were nipped with hemostatic forceps, the wound dusted with a mixture of orthoform and vitrogen and covered with cotton. The others were sutured after cutting and dressed in the usual way. In every case there was less apparent pain, less discomfort and disturbance, more rapid healing and a better appearing penis where the open method was used. In those cases where the sutures were used the stitches apparently caused a great deal of irritation and restlessness. The peaceful, uninterrupted healing of the wound where sutures were not used makes it the ideal method in very young infants.

A CHEAP AND HANDY APPLICATOR.

A handy and cheap instrument for genitourinary work is the ordinary cotton-tipped pipe cleaner, which may be purchased in any cigar store for 5 cents a dozen. The urethra may be wiped out with these and ointments applied with the utmost ease and safety. They have been in use in the genitourinary dispensary for some months and have been found serviceable and trustworthy.

49 NIAGARA STREET.

ABSTRACT.

Heredity with a Study of the Statistics of the New York State Hospitals.¹

By WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

Consulting Neurologist, Buffalo General Hospital, Providence Retreat; Attending Neurologist, Erie County, German, German-Deaconess, Emergency and Woman's Hospitals, Buffalo
Eye and Ear Infirmary; Fellow of the American Neurological Association.

HEREDITY has been defined as that peculiar property of an organism which transmits to its offspring the characteristics of its progenitors. If those characteristics are ones of grace, beauty and strength, the offspring will inherit the corresponding qualities of the parent; if, on the other hand, defect and infirmity are the characteristics of the sire, then these qualities will reappear in the young, often with renewed impetus and reinforcement. Moreover, while it is an easy matter for the higher and nobler attributes to become through custom and environment deflected and deteriorated it is almost an impossibility for the baser and decrepit qualities and conditions to become regenerated and rehabilitated.

These laws hold good not only in the human family but in the vegetable and animal worlds as well; they follow exactly the same course and terminate at the same place. Out of propagated weakness there cannot come strength; out of defects there cannot come perfection. To me heredity is nothing more than a mirror reflecting from one generation to another the grace, beauty and strength, or else the coarse, ugly, defective features of the one standing before it.

Heredity may also be compared to a composite photograph. If the facial lines of the individuals selected are regular, the facial

1. Read before the Section on Medicine, Buffalo Academy of Medicine, May 13, 1902.

angles of nearly equal degree, and the component parts symmetrical, the photograph will be clear, sharp and a good reproduction of the individual features.

If there exists asymmetry of the two facial halves, if the component parts are deformed, irregular and the facial angles of the individuals are of varying degrees, a composite photograph will be obtained that is blurred, distorted and defective. So also with a child of faulty parentage or grandparentage,—it represents the ensemble of the vices and defects of successive generations, unless arrested or attenuated by environment. As Kiernan has well said, Heredity is a prophecy of what may be, not necessarily a destiny which must be.

The diagnostic value of a hereditary tendency to insanity depends largely on its degree. Thus the insanity of one parent would indicate a less degree of predisposition than that of one parent and an uncle, or still less than that of a parent and a grandparent, or of both parents. Again, the insanity of a parent and a grandparent with an uncle or an aunt in the same line may be held to indicate a stronger predisposition than even the insanity of both parents.

The significance of the insanity of parents will depend to a large extent upon the period of its onset. The insanity of a parent occurring after the birth of a child, if it arose from a cause adequate to excite it without previous predisposition, would be held, of course, as of no value in the formation of a hereditary tendency.

The insanity of relatives further removed than parents, uncles and aunts, brothers and sisters and first cousins, is not worth anything except in corroboration of nearer and weightier facts. But the influence of other related diseases to insanity occurring in those near akin, such as eccentricity, alcoholism, epilepsy, hysteria, hypochondriasis, vicious or criminal tendencies, and the like, may be of great import.

Perhaps nowhere is this doctrine of heredity more potent than in psychiatry; and in the statistics gathered and published by the different hospital systems, lunacy commissions and census reports, one can gain some idea of its strength and solidity.

The New York State Lunacy Commission, with the large and well conducted hospitals under its supervision, is able to furnish some figures on the frequency of heredity which must carry some weight and conviction even to those who are inclined to reject the doctrine or those who believe that its importance

has been overestimated. The tables quoted are taken from the last annual report of the New York State Lunacy Commission, composed of Dr. Frederick Peterson, chairman, W. L. Parkhurst, Daniel N. Lockwood and T. E. McGarr, secretary.

RECAPITULATION.

Showing percentage of heredity of the twelve State Hospitals for the year 1899-1900 and since October 1, 1888.

INSTITUTIONS.	1899-1900.			Since October 1, 1888.		
	Heredity of whole number.	Exclusive of unascertained.	No heredity exclusive of unascertained.	Heredity of whole number.	Exclusive of unascertained.	No heredity exclusive of unascertained.
Utica S. H.	26.5	30.	70.	29.6	51.4	48.5
Willard S. H.	33.8	41.1	58.8	28.6	46.8	53.5
Hudson River S. H. . .	34.7	44.5	55.4	27.5	53.3	46.6
Middletown S. H. . . .	26.4	28.2	71.7	29.4	31.6	68.7
Buffalo S. H.	24.7	30.9	69.	21.1	31.6	68.3
Binghamton S. H. . . .	36.2	40.1	59.8	32.9	43.4	56.5
St. Lawrence S. H. . . .	35.8	52.1	47.8	33.8	50.7	49.2
Rochester S. H.	31.6	34.1	65.8	27.4	39.	60.9
Long Island S. H. . . .	17.5	33.9	69.	15.7	32.6	67.3
Manhattan S. H. East .	13.4	14.2	82.7	13.1	18.1	75.9
Manhattan S. H. West .	11.7	14.1	85.7	14.	18.6	81.5
Gowanda S. H.	28.5	36.	63.9	31.2	42.9	57.
Matteawan S. H. . . .	15.4	76.4	23.2	15.	56.	43.9

Percentage showing heredity, 1899-1900, 25.8; since 1888, 24.5.

Percentage exclusive of unascertained, 1899-1900, 36.6; since 1888, 39.7.

Percentage showing no heredity exclusive of unascertained, 1899-1900, 63.3; since 1888, 59.8.

Total number of cases admitted, 1899-1900, 6,361; since 1888, 61,257.

Total number of hereditary cases, 1899-1900, 1,202; since 1888, 14,526.

The hospital showing the highest percentage of heredity of the whole number for the year 1895-1896 was the Matteawan Hospital, with a percentage of 57.1; for the year 1898-1899, the St. Lawrence Hospital with a percentage of 41.6; for the year 1899-1900, the Binghamton Hospital with a percentage of 36.2. And since 1888, the St. Lawrence Hospital with a percentage of 33.8.

Exclusive of the unascertained cases the St. Lawrence Hos-

pital showed the highest percentage for the year 1898-1899, with 56.6; for the year 1899-1900, the Matteawan Hospital with a percentage of 76.4; and since 1888, the Matteawan Hospital with a percentage of 76.4.

The lowest percentage of heredity for the year 1895-1896 was shown by the Manhattan State Hospital with a percentage of 17.3; 1898-1899, the Matteawan Hospital with a percentage of 15.3; 1899-1900, the Manhattan Hospital, West, with a percentage of 11.7; and since 1888, the Manhattan Hospital, East, with a percentage of 13.1.

Exclusive of the unascertained cases the Manhattan Hospital showed the lowest percentage for the year 1898-1899, with a percentage of 16.6; the Manhattan Hospital, West, for the year 1899-1900, with a percentage of 14.1; and since 1888, the Manhattan Hospital, East, with a percentage of 18.1.

These percentages vary of course from year to year and the percentage of the whole number since 1888, as 39.7, is perhaps as correct an index of the true percentage as it is possible to determine.

It is a noteworthy fact that the reports of the New York State Hospital show that *maternal* transmission is increasing rapidly over *paternal* transmission, as shown by comparison of the figures given for the years 1895-1896 and 1899-1900.

Turning now to nervous diseases proper, we find heredity just as strongly represented in the various neuroses as was found for the psychoses,—there is transmitted in the organism certain diatheses which favor certain diseases, such as Huntington's chorea, Friedreich's disease, running through successive generations. These diseases are termed hereditary, familial, embryonic, and this succession is what is meant by the term direct heredity or organic heredity. The severity of the heritage depends very largely upon the number of members and branches affected. Here again, as in the study of psychotic heredity, we find that maternal transmissibility far exceeds the paternal.

Indirect heredity is heredity by transformation from other neuropsychic diseases and is more common but of less consequence than direct heredity. Given a neuron feebly endowed with enduring qualities, it is not improbable that any condition capable of reducing the general health may act with unusual virulence upon it. The result is a neuropathic disposition, or a

nervous organisation with a tendency to yield readily to undue strains and unusual influences, though of themselves of no material importance. There is propagated from parent to offspring certain diatheses which favor certain neuropathic equivalents. Thus epilepsy, melancholia or inebriety, may favor the production of hysteria, chorea or neurasthenia, while in the succeeding generations, the transformation of the neuroses and toxic diatheses in propagation result often in imbecility. Thus the children of hysteric, epileptic, hypochondriac and syphilitic or alcoholic parents are liable to be imbecile. Phthitical parents also frequently beget imbecile children.

In the progressive degeneracy which leads to the extinction of families, imbecility is the next to the final stage, which ends with idiotic incapacity of reproduction. (Kellogg.)

There is thus nurtured a family tree whose branches become heavily laden with neuropathic fruit, yielding and bending to the slightest zephyr until through sterility it becomes barren and lifeless and falls by the wayside in the struggle for existence.

The diseases of the nervous system are arranged alphabetically, according to their hereditary tendency, and also those which authorities are agreed do not belong to this category. The hereditary neuroses are divided into those of direct and indirect transmissibility.

Abscess, cerebral; no heredity. Acromegaly; no heredity. Adiposis dolorosa; indirect heredity. Amyotrophic lateral sclerosis; indirect heredity occasionally and direct. Anemia, cerebral; no heredity. Aneurism, intracranial; direct heredity occasionally. Angioneurotic edema; direct heredity. Apoplexy, cerebral (cerebral arterial disease); direct heredity very slight. Astasia abasia; direct heredity. Bell's palsy; no heredity. Brown-Sequard's paralysis; no heredity. Bulbar paralysis, asthenic; no heredity. Bulbar paralysis, progressive; indirect heredity. Caisson disease; no heredity. Chorea, electrical (Dubini's disease); no heredity. Chorea, Huntington's; direct heredity. Chorea, Sydenham's; indirect heredity. Coprolalia; indirect heredity. Cretinism, endemic; direct heredity. Eclampsia infantum; no heredity. Embolism, cerebral; no heredity. Encephalitis, acute hemorrhagic; no heredity. Epilepsy; direct heredity, 33 per cent. paternal. Erythromelalgia; no heredity. Exophthalmic goitre; indirect and direct heredity. Hematomyelia; no heredity. Hemorrhachis; no heredity. Hemiatrophia facialis; direct heredity. Hereditary amaurotic idiocy; direct

heredity. Hereditary ataxic paraplegia; direct heredity. Hereditary cerebellar ataxia; direct heredity. Hereditary cerebral diplegia; direct heredity. Hereditary hemiplegia; direct heredity. Hereditary spastic paraplegia; direct heredity. Herpes zoster; no heredity. Hydrocephalus, chronic; indirect heredity. Hyperemia, cerebral; no heredity. Hyperostosis cranii; no heredity. Hypochondriasis; direct and-indirect heredity. Hysteria; direct heredity 75 per cent. maternal. Landry's paralysis; no heredity. Laryngismus stridulus; indirect heredity. Leptomeningitis, acute; no heredity. Leptomeningitis, chronic; no heredity. Little's disease, congenital; direct heredity. Locomotor ataxia; indirect heredity. Menière's disease; no heredity. Meningitis, alcoholic, serous; no heredity. Meningitis, epidemic cerebrospinal; no heredity. Meningitis, tuberculous; direct heredity. Migraine; direct heredity. Morvan's disease; no heredity. Muscular atrophy, arthritic; no heredity. Muscular atrophy (Charcot-Tooth); direct heredity. Muscular atrophy (Duchenne-Aran); indirect heredity. Muscular atrophy, occupation; no heredity. Muscular dystrophy, progressive (Landouzy-Déjerine and Erb types); direct heredity. Muscular hypertrophy, pseudo; direct heredity. Myelitis, acute, transverse; indirect heredity. Myelitis, chronic; no heredity. Myxedema; no heredity. Neuralgias; indirect heredity. Neuritis; indirect heredity, tendency to alcoholism. Neuromata, true, multiple and plexiform; direct heredity. Occupation neurosis; indirect heredity. Ophthalmoplegia, progressive; no heredity. Pachymeningitis cervicalis hypertrophica; no heredity. Pachymeningitis hemorrhagica interna; no heredity. Paralysis agitans; direct heredity (rare). Paramyoclonus, multiplex; indirect heredity. Paresis; indirect heredity. Poliomyelitis acuta adultorum; no heredity. Poliomyelitis acute anterior; 1-2 per cent. direct heredity. Rabies; no heredity. Raynaud's disease; indirect heredity. Saltatoric spasm; indirect heredity. Scleroderma; indirect heredity. Sclerosis, combined of anemia; no heredity. Sclerosis, multiple; indirect and direct heredity. Spasm, facial; indirect heredity. Spasm, habit; indirect heredity. Spina bifida; direct heredity. Syphilis, cerebral; indirect and direct heredity. Syringomyelia; no heredity. Tetanus; no heredity. Tetany; no heredity. Thomsen's disease; direct heredity. Thrombosis, cerebral; no heredity. Torticollis; direct and indirect heredity. Tumors, cerebral; no heredity. Tumors, spinal, no heredity.

DIRECT

HEREDITY. }

Amyotrophic lateral sclerosis.
 Aneurism, intracranial.
 Angioneurotic edema.
 Apoplexy, cerebral.
 Astasia abasia.
 Chorea, Huntington's.
 Cretinism.
 Epilepsy.
 Exophthalmic goitre.
 Hemiatrophia facialis.
 Hereditary amaurotic idiocy.
 Hereditary ataxic paraplegia.
 Hereditary cerebellar ataxia.
 Hereditary cerebral diplegia.
 Hereditary hemiplegia.
 Hereditary spastic paraplegia.
 Hypochondriasis.
 Hysteria.
 Little's disease.
 Meningitis, tuberculous.
 Migraine.
 Muscular atrophy (Charcot-Tooth.)
 Muscular dystrophy (Landouzy-Déjerine and Erb types.)
 Muscular hypertrophy, pseudo.
 Neuromata.
 Paralysis, agitans.
 Poliomyelitis, acute anterior.
 Sclerosis, multiple.
 Spina bifida.
 Thomsen's disease.
 Torticollis.

INDIRECT

HEREDITY. }

Adiposis dolorosa.
 Amyotrophic lateral sclerosis.
 Bulbar paralysis, progressive.
 Chorea, Sydenham's.
 Coprolalia.
 Exophthalmic goitre.
 Hydrocephalus, chronic.
 Hypochondriasis.
 Hysteria.
 Laryngismus stridulus.
 Locomotor ataxia.
 Muscular atrophy (Duchenne-Aran.)
 Myelitis, acute transverse.
 Neuralgias.
 Neurasthenia.
 Neuritis.
 Occupation neuroses.
 Paramyoclonus, multiplex.
 Paresis.
 Raynaud's disease.
 Saltatoric spasm.
 Scleroderma.
 Sclerosis, multiple.
 Spasm, facial.
 Spasm, habit.
 Syphilis, cerebral.
 Torticollis.

NO HEREDITY

Abscess, cerebral.
 Acromegaly.
 Anemia, cerebral.
 Bell's palsy.
 Brown-Sequard's paralysis.
 Bulbar paralysis, asthenic.
 Caisson disease.
 Chorea, electrical; Dubini's disease.
 Eclampsia infantum.
 Embolism, cerebral.
 Encephalitis, acute hemorrhagic.
 Erythromelalgia.
 Hematomyelia.
 Hemorrhachis.
 Herpes Zoster.
 Hyperemia, cerebral.
 Hyperostosis cranii.
 Landry's paralysis.
 Leptomenigitis acuta.
 Leptomenigitis chronica.
 Menière's disease.
 Meningitis alcoholic (serous).
 Meningitis, epidemic cerebrospinal.
 Morvan's disease.
 Muscular atrophy, arthritic.
 Muscular atrophy, occupation.
 Myelitis, chronic.
 Myxedema.
 Ophthalmoplegia, progressive.
 Pachymeningitis cervicali hypertrophica.
 Pachymeningitis hemorrhagica interna.
 Poliomyelitis acuta adutorum.
 Rabies.
 Sclerosis, combined of anemia.
 Syringomyelia.
 Tetanus.
 Tetany.
 Thrombosis, cerebral.
 Tumors, cerebral.
 Tumors, spinal.

SOCIETY PROCEEDINGS.

Buffalo Academy of Medicine.

Stated Meeting, May 20, 1902.

REPORTED BY F. W. MCGUIRE, M. D., Secretary.

MEETING called to order by the president, Dr. CHARLES G. STOCKTON, at 8.40 p.m.

The minutes of the last stated meeting, held March 4, 1902, were read and approved.

The council recommended the election of Dr. Eugene Wasdin, U. S. Marine Hospital Service, for non-resident membership and Dr. Edward D. Gibson for resident membership. They were separately balloted for and elected fellows of the Academy.

It was moved and seconded that Section 2 of the by-laws, relating to the annual meeting, be temporarily suspended. Carried.

It was moved and seconded that the annual meeting of the Buffalo Academy of Medicine be held June 17, 1902. Carried.

On motion the committee appointed to investigate St. Mary's Orphan Asylum and Maternity Hospital was requested to report June 17. Carried.

Election of officers for section of pathology resulted as follows: chairman, Dr. Irving P. Lyon; secretary, Dr. Jacob S. Otto.

A memorial to Dr. Edward Mott Moore, of Rochester, was read by Dr. J. W. Grosvenor, as follows:

IN MEMORIAM—EDWARD MOTT MOORE, M. D.

Dr. Edward Mott Moore, born in Rahway, N.J., on July 15, 1814, completed his earthly pilgrimage of 88 years and passed into his eternal rest at Rochester, on March 3, 1902. His career was marked by high resolves and noble deeds.

We recognise in him a striking illustration of the utility of a thorough preparation as a factor for the highest success in the medical profession. Born of a race of professional teachers he inherited a love for study and investigation. Through classical and scientific courses of instruction his preparation for the study of medicine was unusually thorough. By practical experience in a physician's office, attendance at two of the foremost medical colleges of the country, being graduated from the medical department of the University of Pennsylvania, and by work in the capacity of resident physician of hospitals he became fully equipped for the beginning of professional life.

Taking up his residence in Rochester, in the year 1840 the three score years of his medical career were spent in that city. Those years were devoted to the intense, every-day work of practical medicine and surgery, in both of which branches he gained a wide reputation.

The experiments in the early part of his professional life upon the action of the heart are well known. In after years he gave much professional attention to the treatment of fractures and dislocations. Moore's treatment of Colles's fracture, which differed greatly from the established usage of that day, was the outcome of an investigation of the anatomical conditions which accompany that injury. The results of his investigations and experiments were presented to medical societies and published in medical periodicals. For the Surgical Encyclopedia he wrote an article on fractures and dislocations. His articles bore the stamp of practical information and suggestion.

For the twenty-five years previous to 1883 he occupied the professorial chair of surgery in the Medical College of Buf-

falo. His connection with this college and his surgical professorship in the medical school at Woodstock, Vermont, Berkshire Medical College of Massachusetts, and Starling Medical College at Columbus, Ohio, gave him a service of forty years as a teacher in which with rare thoroughness he trained many hundreds of medical students and physicians for their future work.

As a lecturer he was clear, concise and convincing. He indulged in no irrelevant platitudes; he clung tenaciously to the subject under consideration. When his lecture, either didactic or clinical, was finished, the hearer felt that he had listened to a speaker who was actuated by a sincere and lofty purpose. His large and well proportioned physique gave him a dignified and exalted appearance in the professorial chair and added to the force of his descriptive language.

He may have been most widely known through his surgical achievements, but his work extended far beyond the domain of surgery; he was a successful practitioner of general medicine and was specially skilful as a diagnostician.

His medical brethren, in recognition of his attainments, placed him in honorable positions in medical societies to which he belonged. He was president of the American Medical Association, of the Medical Society of the State of New York, and American Surgical Association, and delegate to the International Congress of Physicians, held at Copenhagen in 1894.

He was not merely an eminent surgeon and physician, but was a citizen of the broadest type. In Rochester, the city of his adoption, where he lived and labored for more than sixty years, he was an ardent advocate of progress, governmental, commercial, educational, sanitary, social, ethical. He was the only president of the Rochester Park Board and retained that position to the end of his life. Rochester calls him the father of its park system and recognises its beautiful park as his monument. He was also president of the Red Cross Society of Rochester and of the Board of Trustees of Rochester University. He held the rare attitude of being president of all societies of which he became a member.

Dr. Moore was interested not merely in the advancement of his own city, but his desires reached out towards the betterment of mankind everywhere. He was a humanitarian in the largest meaning of that word.

He aimed to become a master in all his work and to this end, by thorough investigation, sounded the depths of whatever problem he undertook to solve. He had lofty ideals and his hand reached out very far toward their attainment. He attained not only to an American but to a world-wide reputation.

In strength of character and broad attainments we may liken him to the gigantic oak, towering above the trees which surround it, spreading its branches far and wide, affording protection from the summer's heat, defying the wintry blasts, growing

into the life of centuries. Many a year will pass ere we look upon his like again. It should be ours to emulate and preserve green in memory his many and exalted virtues.

By the citizens of Rochester he will long be remembered for his work in the elevation of the material, intellectual and social conditions of that city. He has been aptly called Rochester's "foremost citizen."

By posterity he will be recognised as standing in the front rank of the American physicians and surgeons of his time.

We congratulate the family, kindred and friends of Edward Mott Moore, M. D., on their high privilege of enjoying for more than fourscore years the rare friendship of a personality of such broad aims and successful work, and tender to them our sincerest sympathy for the great loss they have sustained in his removal from his earthly sphere of labor and companionship.

J. W. GROSVENOR,
EUGENE A. SMITH,
HERMAN E. HAYD,

Committee.

BUFFALO, N. Y., May 20, 1902.

On motion the memorial was received and ordered spread upon the minutes and a copy sent to the family.

The Section of Pathology provided the following program:

Dysentery and its causes, Simon Flexner, Professor of Pathology, University of Pennsylvania. Notes on a few cases of smallpox from the Buffalo epidemic of 1901-1902 (stereopticon), David E. Wheeler.

Dr. Flexner's paper was discussed by Drs. Herbert U. Williams, DeLancey Rochester, E. E. Blaauw, Grover W. Wende, Irving P. Lyon, Charles G. Stockton and M. Hartwig.

Dr. Wheeler's paper was discussed by Drs. Grover W. Wende, M. Hartwig and Charles G. Stockton.

Dr. E. E. BLAAUW presented a specimen of sarcoma of the choroid of the eye.

Attendance, 50. Adjourned, 10.30 p.m.

Alumni Association, University of Buffalo.

REPORTED BY T. H. MCKEE, M. D., Secretary.

THE twenty-seventh annual meeting of the association was called to order at 2.30 o'clock, p.m., by first vice-president, A. W. BAYLISS, who read a letter from the president, Dr. F. H. Moyer, explaining his absence on account of illness. The secretary was directed to write Dr. Moyer expressing the regrets

and disappointments of the association at his absence, and hopes for his speedy recovery. A telegram of regret was also read from Dr. D. W. Harrington.

The report of the treasurer was presented and submitted to an auditing committee, consisting of Drs. Clark, Meisberger and B. G. Long, who reported the books and accounts correct. The report of committee was adopted.

Dr. A. T. LYTLE, chairman, made a verbal report on the work of the executive committee, and moved a vote of thanks to Miss Chappell for her ever ready and cheerful assistance during the past year. Carried.

On motion the chairman was instructed to appoint a committee to nominate officers. The committee reported as follows: President, A. W. Bayliss, '89, Buffalo; first vice-president, A. W. Henschell, '89, Rochester; second vice-president, Fridolin Thoma, '87, Buffalo; third vice-president, Henry T. Benham, '90, Honeoye Falls; fourth vice-president, Jane W. Carroll, '91, Buffalo; fifth vice-president, Geo. A. Himmelsbach, '91, Buffalo; secretary, T. H. McKee, '98, Buffalo; treasurer, Herman K. DeGroat, '97, Buffalo.

Executive Committee.—Albert T. Lytle, '93, chairman, Buffalo; Grover W. Wende, '89, Buffalo; Franklin W. Barrows, '93, Buffalo; A. W. Bayliss, *ex-officio*, Buffalo; John Parmenter, *ex-officio*, Buffalo.

Board of Trustees.—Frank H. Moyer, '72, Moscow, N. Y.; D. A. Currie, '64, Englewood, N. J.; P. W. Van Peyma, '75, Buffalo; William Warren Potter, '59, Buffalo; D. W. Harrington, '71, Buffalo.

On motion the report of the nominating committee was accepted and the secretary instructed to cast one ballot for the candidates named, who were then declared elected.

The program for the day then followed.

First Paper.

PROFESSOR HERBERT M. HILL, PH. D.

GUNPOWDER AND EXPLOSIVES.

Dr. Hill sketched the advances in the manufacture of weapons from the simple forms of the far distant east to the deadly engines of modern warfare, but especially considering gunpowder and explosives.

Gunpowders vary largely in both physical and chemical characteristics with the purposes for which they are designed.

The old-fashioned black powder was a compound of charcoal, sulphur and saltpetre. The latter constituent was added to furnish oxygen for the combustion of the carbon, and the sulphur to add to the volume of gas produced in the process of combustion. It is the propelling power of the gas which sets the bullet in motion. The great disadvantage of the ordinary powder is, that the gas once being freed, and the bullet begins to leave the breech, the pressure becomes less and less owing to the increasing space as the bullet nears the muzzle of the gun, so the volume of gas formed must be very large in order to furnish a high initial velocity at the muzzle. The black powder is unsuitable for warfare because it does not furnish a true gas, but a vapor, and a large amount of unburned carbon to the air which soon renders it impossible to see.

If you should make a simple mixture of the ingredients of black powder and ignite it, the result would be a very slow combustion, creeping along until the whole mass was burned. It has been found necessary to mix the materials very thoroughly in a moist condition and to compress and granulate them before the compound is in any kind of shape to yield a sudden volume of gas when ignited. The glistening surface is given in the last stage of manufacture by treatment with graphite. A sample of black powder was then exploded to illustrate the formation of smoke and residue. A part of the residue consists of potassium sulphate, which readily takes up moisture from the air, so that the inside of the barrel soon becomes wet. This material also readily attacks iron, so if the gun is laid away uncleaned it becomes eroded, and that detracts from its ability to throw a projectile. For blasting purposes this black powder is prepared with a different proportion of ingredients, and the grains are as large as peas.

From the time that guncotton first came to be used in warfare various investigators had in mind the thought that it might be used in place of the black powder. It was known that while it gave most wonderful explosive effects it made no smoke and almost no residue. But the explosive effect was of such terrible character that it could not be used in any ordinary gun. The object then became to manufacture a guncotton which would not have such explosive effect but that it could be adapted to use by ordinary guns. It was found that according to the length of time the cotton was left in contact with the nitric acid the greater or less proportion of nitric acid radicle entered into the

compound; that by long treatment a guncotton of such explosive power could be made that the weapon would go to pieces; on the other hand, by treating a shorter time one is produced which has nowhere near the explosive power, burns readily, furnishes gas in sufficient quantity and gives practically no residue. For that purpose the cotton is made into what is known as a colloidal condition, treated with solvents so that it loses its fibrous character and becomes a good deal like glue.

This material is ground in the manufacture of smokeless powder, which leaves it in this finely divided condition. It is also treated with acetone, which granulates it, so at last you have a cellulose nitrate which comes into the market looking a good deal like grains of mustard seed. (Dr. Hill here illustrated the combustion of this variety of powder.) This is relatively a slow burning powder which makes it continue to increase the volume of gas all the time the projectile is inside the gun and until it escapes from the muzzle it is moving faster and faster. Such is the character of the powder used for sporting purposes. For military use we have a powder which has more ability to make gas than the simple nitrate. That effect may be brought about in two ways: either by using a guncotton that has been treated longer with nitric acid, resulting in a product nearer akin to this wonderfully explosive variety used in the torpedo, or by mixing the guncotton with nitroglycerine. The powder now used in many armies contains a large proportion of that substance, the character of the nitroglycerine being largely diluted, so to speak, by the guncotton used with it. Here is a sample of this highly explosive military powder manufactured entirely from guncotton, and differing from the sporting variety in that the cotton has been treated longer with nitric acid, has become correspondingly more unstable, and being more unstable furnishes its volume of gas more quickly. The residue is very light and the smoke not large in amount.

I now exhibit a sample of dynamite, which is about 60 per cent. nitroglycerine absorbed in wood pulp. The high-pressure military powder has about 50 per cent. absorbed in guncotton instead of wood pulp, thereby giving the explosive effect of both. One important point with reference to this powder is the fact that the gases formed are of such character as to have no serious injurious effects on the material of the gun. In manufacturing powder for large guns it is customary to make the individual particles large, and to increase the burning surface to make

holes through the larger pieces. (Prof. Hill here exhibited samples of cannon powder.)

In order to produce combustion of this powder it is necessary to have some material which shall carry fire in some manner from the quick stroke of a hammer to the charge. The oldest method was by the actual application of a match or piece of lighted tow to the powder lying in the pan. From that developed successively the flint lock and the use of fulminate of mercury. This was first made into little pills, which were put into the top of the nipple, it being hollowed out for that purpose, and then the sharp point of the hammer striking the pill exploded it. That was the old-fashioned "punch-lock" gun. It was then found advisable to put this fulminate of mercury in a little metal case or "cap," which is used in one form or another for the various kinds of powder.

Second Paper.

PROFESSOR WILLIAM H. MOSHER, PHAR. D.

ANCIENT AND MODERN WEAPONS.

In the earliest form of gun using explosive material such as powder, the charge was ignited by a match; but they have become so rare that it was impossible to secure one for this exhibition. Here is the flint-lock, the earliest form we could obtain. It has a tremendous recoil. It was used by both sides during the revolution. Very few of the barrels were rifled. Here is a sample of the flint-lock pistol carried by the officers, whose servant kept them loaded as fast as fired. The ball weighed over an ounce and the amount of shock caused by it was considerable.

The next type, the Remington, very similar to the Springfield, was used during the civil war. It was a percussion lock with a cap lined with fulminate. The cartridges were paper, having the ball in one end and the charge in the other; they were tied with a string, and when loaded the end was bitten off with the teeth and the charge sent home with a ramrod. They produced a very heavy recoil, the ball weighing 482 grains. The gun weighed about nine pounds.

During the civil war various models of semi-breechloading guns were made. Here is one that saw actual service; it breaks at the breech, a paper cartridge was inserted and a cap placed on the nipple. Here is a cavalry carbine carrying the same sized ball. Another model of the same thing was the Gallagher

carbine, a forerunner of the modern Maynard. Until the latter years of the war no gun was used requiring a metal cartridge; then the Spencer repeating rifle was used by sharpshooters. Here is a sample, 58 calibre, carrying an ounce ball, rim fire, that is, the fulminate was placed about the rim. The next type was the Springfield breechloader, a few of which were used toward the end of the war. This is the cartridge, known as the 50—70 musket, *i. e.*, a 50 caliber requiring 70 grains of black powder. The next was the 45—70, and following that the 45—75, carrying an ounce ball. The next change in the national weapon was to the Krag-Jorgensen, with a calibre of .30 and using smokeless powder.

In the late war the Spaniards used a Mauser, which is also a bolt gun with a magazine below. The cartridges are fed in bunches or "clips" of five. It has a bore of about .28, and a straight stock.

The same cartridge has been adapted by the Winchester people to a sporting rifle with lever action, the so-called 30—40. This cartridge also comes as the soft-nosed or "dum dum." (The speaker here exhibited the 30—30 Winchester and the Savage and discussed the technical points and mechanism illustrated by the two.)

The chief difference in the manufacture of the old, black powder guns and these using smokeless powder is in the quality of the steel used. The steel used in the 30—40 and the 30—30 requires a tensile strength of over 100,000 pounds to the square inch. There is nineteen tons pressure in the breech of a Krag when the bullet starts. Another difference is in the rifling. By putting in a series of spiral grooves the old smooth barrel is changed into a rifled gun and imparts a rotary motion to the projectile to prevent its turning sideways, or "key-holing." In the muzzle-loader this extends to about two-thirds of the way down; in the breech-loader almost the entire distance.

Dr. Hill and Mr. Mosher then fired full jacketed and dum dum bullets with smokeless powder as well as the lead bullet with black powder, illustrating the difference in penetrating power and sound of report.

Third Paper.

WILLIAM H. BERGTOLD, M. D.

EFFECTS OF MISSILES ON BIG GAME.

It has been my privilege during the past eight years to do a good deal of hunting among big game, such as deer, elk and

antelope, with an abundance of bear and mountain lion, and among all these I have seen many wounds produced by both the old black powder guns and the modern sporting rifle. The trend of the sporting rifle, from the time of the small "pea" rifle of the old backwoodsman of Kentucky up to ten years ago, has been toward the use of larger balls. The difference in the effect desired in hunting game and in warfare is this: in game we wish to kill, to produce as savage and severe a wound as possible as the first effect; in warfare the object is to produce disability alone, and with as little damage as possible. With the old black powder we found in the West that the tendency was to cling to the large calibre; that the buffalo hunters discarded their Spencers and Sharps, which carried balls weighing an ounce, with a great deal of reluctance. They were accustomed to shoot buffalo at close range and wanted a ball to produce a tremendous wound.

When the buffalo disappeared and left elk, deer and game of that sort, for a number of years the tendency shifted to the use of the Winchester, and the favorite size was 45—70 or 45—90. In 1895 I used a 45—90; in 1896 the Winchesters brought out their first high velocity small calibre sporting rifle.

Now I wish to call your attention to one point, and that is that the modern small calibre rifle in warfare uses a completely jacketed ball. In 1896 I saw the results of using a jacketed ball on game while hunting with a friend who had no soft-nosed ammunition. In three weeks' hunting we didn't have a single opportunity to examine the wound in a deer, elk or antelope, notwithstanding he was a dead shot. I have not the slightest doubt that he hit a great many, and the balls went straight through them.

On the other hand, the effect of the soft-nosed or dum dum bullet on game is startling. I have seen a buck weighing 150 to 300 pounds have the top of his head taken off as completely as though done with a cleaver by a soft-nosed 30—30. I have seen a bull elk at 800 yards drop as though electrocuted, and the post-mortem would show, for example, the ball having entered behind the right shoulder, traversed the lungs and heart and lodged in the shoulder of the opposite side, the lungs and heart being an absolutely pulverised mass as big as my hat. I have seen elk run, 600, 700 or 800 yards, with a black powder, soft lead wound through the heart. The effect on an animal tenacious of life like the mountain lion I saw once. He was about

90 yards away in dense timber. He had stopped to look at us, turning his head back toward his rump. The ball caught him in the mouth, passed out through the occipital bone, pulverising the atlas and neighboring bones. The animal never stirred, except in the twitching of his tail.

We find the small bore, high velocity, soft-nosed bullet is by long odds ahead of any other that has been put upon the market for sporting purposes.

Dr. Bergtold exhibited specimens of soft and full jacketed bullets taken from game post-mortem.

Dr. William Warren Potter, of Buffalo, followed with the subject: Personal experiences in the civil war. His remarks were of a general character, during the course of which he mentioned many incidents showing the destructive nature of the missiles then in use for large and small arms.

Major L. A. La Garde, Surgeon U. S. Army, in charge of Soldiers' Home at Washington, then presented a paper entitled, Gunshot wounds by old and new armaments (see page 873), which was illustrated with the stereopticon.

Lieutenant-Colonel G. Sterling Ryerson, of Toronto, read a paper entitled, My experiences in war—a contrast, 1885-1900, which will be published in a subsequent issue of the JOURNAL. Major William P. Kendall, Surgeon U. S. Army, Fort Porter, Buffalo, read on Experiences in the Philippine war, and Dr. Roswell Park, of Buffalo, discussed the Diagnosis of the location of missiles and treatment.

Dr. William C. Phelps, of Buffalo, read a paper on Experience with gunshot wounds in civil life, which will also be published in a later issue.

The Association then adjourned to dinner at the Iroquois Hotel.

CLEFT PALATE.—A. Vander Veer (*Reference Hand-Book of Medical Sciences*) ascribes the cause of this deformity to heredity and the want of a meat diet and of sufficient phosphates on the part of the mother. In confirmation of this view, he cites the fact that several years ago the lions in the Zoological Gardens of London were fed upon flesh containing too large bones for them to break and swallow. The young born while this method of feeding was pursued, had cleft palates and lived but a short time. The lions were then fed upon small animals, whose bones they could break easily, and the young born afterward had perfectly formed palates.—*Denver Medical Times*.

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The Reorganised American Medical Association.

THE first meeting of the American Medical Association with a new constitution and by-laws was held at Saratoga Springs, June 10-13, 1902, under the presidency of Dr. John Allan Wyeth, of New York. The convention was well attended though the number registered was smaller than for several years past. The cool weather that prevailed during the week contributed to make the session work of a higher order than usual.

The chief interest grouped around the house of delegates because of the novelty of that body and the curiosity pertaining to its first legislative work. If there were those who predicted its failure or hoped for its confusion, they were doomed to disappointment; for it must be confessed that looked at from all sides and from every viewpoint, and considered with reference to its lack of experience and the somewhat heterogeneousness of its makeup, its first legislative season closed with harmony, after the performance of a large amount of valuable work that will serve to advance the welfare of the association. If, again, there were those who were determined that the plan should be abandoned after this one trial, and a return made to the old methods of procedure, they, too, are destined to disappointment because the system is likely to endure. That there will be occasion for changes in detail is probable, but the general structure is likely to last for many years.

Another feature of interest centered in the relationship of the Medical Society of the State of New York to the Association. The former is the parent organisation, though it was excommunicated from the latter twenty years ago, by reason of its heresy regarding the code of ethics. It had modified this very

ancient and honorable document in conformity with the requirements of law. It boldly took a step in the open that others were taking in secret. It obeyed the majesty of the law and was punished by the exponents of the gospel,—for the chief priests and elders persuaded the multitude. Happily, however, the heresy of 1882 has become the orthodoxy of 1902, as is so truthfully and cleverly stated by *The Medical Record*; hence the unification of the medical profession is believed to be near at hand.

Acting upon the suggestion which grew out of a conference of the leaders of the opposing factions, the house of delegates authorised the appointment of a committee to consider and report a protocol as a basis of union, which is to be presented next year. President Wyeth appointed as such committee: E. Elliott Harris and Joseph D. Bryant, of New York; William H. Welch, of Baltimore; Nicholas Senn, of Chicago, and T. J. Happel, of Trenton, Tennessee. Every reference made to unification in any of the addresses or remarks from the platform was greeted with hearty cheers, indicating that the rank and file are already anxious for the final act to be promulgated, that shall restore harmony and good fellowship into the ranks of a learned profession where naught else should prevail.

Taking up the spirit of progress that is everywhere manifested by higher resolves and loftier purposes, President Wyeth concluded his address with an eloquent appeal to the better judgment and purer motives of the members, from which we quote as follows:

The American Medical Association is the sponsor for organised medicine in the United States, and failure to accomplish this end implies the failure of this Association. We must not fail, nor will we, unless we falter in carrying out the plan of reorganisation in the liberal and progressive spirit which characterised the session of 1901. It is our plain duty to endeavor to bring about the adoption by the various constituent bodies of a practically uniform constitution and by-laws for each county, and for each state, modified only as the local conditions may require, and all governed by the same rules of conduct. These rules, as at present given in the code of ethics, adopted many years ago by this association, should be also a subject of serious consideration at this time, for we can not claim consistency or be logical in argument until there is but one code for the national association and for all of the state organisations represented in the national body. This, as you well know, does not prevail. Some years ago there lived and labored among us for the good

of mankind and the honor of the profession a man whose genius was of the highest order, and whose name carried the fame of American surgery throughout the world. He was one of those fearless pioneers in science who found his place ever on the frontier clearing the way for those who were to follow. In 1876, at the meeting of the American Medical Association in Philadelphia, Dr. J. Marion Sims, in his presidential address, referring to the code of ethics, says: "The time will come when your organic laws, like the constitution of our country, will require modifications and amendments to suit a higher intelligence, a broader education and a greater destiny." In my opinion, the time has come when we can not absolve ourselves from the responsibility of doing away with the inconsistencies for which we may now be properly criticised.

Such have been the changes in the statutes of a majority of the states since the code was adopted by the respected founders of this association, that we find it insisting upon conduct on the part of our members which is contrary to the laws of the states in which they reside. For instance, one section forbids a member of the regular profession to act upon a board of examiners which has to pass upon the legal qualifications of persons not graduates of regular medical colleges, while in thirty-eight of the states represented here, the civil statutes require these boards, which are composed in great part of members of the association, to examine, pass upon and sign certificates or licenses to practise of homeopaths, eclectics, and other subdivisions of medical practice. In six of these states, including the District of Columbia, the law requires three separate examining boards. In Mississippi, North Carolina and South Carolina the examining boards are entirely composed of regular physicians, and in one of these (Mississippi), while none but regulars are allowed on the board, the law explicitly says: "Distinction shall not be made between applicants because of the different systems or schools of practice that may be chosen." In almost all the states and territories regular physicians are compelled by the laws of the state in which they reside to disobey the injunctions of this section of the code of ethics.

A modification of this and other sections of the code must be a part of the liberal plan of reorganisation which we have essayed.

In conclusion, I ask this association to stand for more than the healing art. To labor for the alleviation of suffering and for the restoration of health is a noble avocation, but to teach our fellows how to avoid disaster is a prouder privilege and a higher duty. We should be teachers of men. How better can we protect the public from disease in all its various forms and insidious processes than by perfecting in every county and in every community an organisation which shall be ever watchful and insistent upon obedience to the laws relating to the public health?

These lofty thoughts clothed in singularly fitting terms were received with an outburst of applause that spoke in an unmistakable manner of their welcome by the large audience that heard them, and as they are read by the countless thousands throughout the length and breadth of the land, they will further receive the gratifying indorsement "well done good and faithful servant!"

May we not expect that the good work begun by Charles A. L. Reed, and carried on by John Allan Wyeth, will be brought to a successful conclusion by Frank Billings?

Exhibits and Exhibitors at the Saratoga Meeting.

ONE of the very interesting features of the meetings of the American Medical Association is the display of the manufacturing pharmacists, instrument makers and publishers, generally spoken of as "The Exhibit." It has been growing in significance and value until it has come to be regarded as only second in importance to the meeting itself. The reasons for this are not difficult to discover.

In the first place the exhibitors themselves are among the most influential and successful business men in the country, and not a few of them are men of scientific attainment. They are chemists, pharmacists, physiologists, litterateurs, publishers, manufacturers, and men of affairs in the broadest and best sense of the term. They are doing a most important work supplementary in character to that of the physician. They establish what is virtually a museum of medical and surgical instruments, apparatus and dressings, pharmaceutical preparations, food and drink for the sick and for infants, utensils for chemical, microscopical and biological laboratories, sanitary and hygienic appliances and devices, hospital and office furniture, and of the literature of the medical and allied sciences.

The exhibit hall, or museum as it should be called, is usually located at some place convenient to the building where the meeting is held and easily becomes one of the attractions of convention week. It is a place where old friends may meet and visit in an informal manner and it affords a restful break in the daytime proceedings of the association. In Saratoga the location was a happy one—adjacent to the Hathorn spring house, which latter furnished an appropriate reception hall. The exhibits were all of a high class and were well visited and inspected by interested throngs during all the days of the sessions.

There was, however, one essential feature that merits criticism, because it is a growing evil that must be checked before it becomes ruinous. We refer to the high price charged exhibitors for space. When as much as \$135.00 is charged for 60 square feet of surface area, and it cost some exhibitors as high as \$400.00 to secure adequate space for four days, it will be readily understood that such rent borders on the exorbitant. This item added to all the other necessary exhibit expenses, such as freight, packing, rent of furniture, and numerous miscellaneous items, brings the total expenditure up to a figure that very few will feel justified in making. We understand the aggregate sum received from the exhibitors at Saratoga was between \$7,000 and \$8,000, or quite enough to meet the expenses of the local committee of arrangements. It is a matter of observation that it will take but little time if these exorbitant charges are continued, to drive out the exhibitors or compel them to organise for themselves and establish museums independently of the association in the cities wherever it meets.

It seems to us, and we have been observers of the situation for twenty years or more, that it would be an exercise of wisdom on the part of the association to assume control of this matter and reduce it to a business basis. A conference should be had with the exhibitors, their interests should be consulted and they should be accorded privileges at reasonable prices that are consistent with the dignity of both parties. The British Medical Association establishes a medical museum in connection with its meetings, publishes the fact in its programs, announces it from the platform and charges very reasonable prices to the exhibitors. The latter easily become great allies and contribute to the success of meetings if they are properly treated.

The local committee of arrangements should not be allowed to exercise further authority in the premises, and we hope that action will be taken which will lead to a correction of what may soon become a great scandal.

Quo Vadis ?

SINCE the first leader in this edition was written we have observed, by the reported proceedings of the house of delegates at Saratoga, that a proposed code of ethics was introduced in that body and referred to a committee instructed "to examine and report for final action" next year.

In this document, Section 2 of Article IV. reads: "The good of the patient being the sole object in view, any physician having a license to practise medicine conferred by the state may be aided in consultation." The next section (3) of the same article reads: "No physician who indicates to the public that his practice is based on a sectarian system of medicine shall be entitled to professional fellowship or to recognition in medical bodies." There seems to be reason for comment upon this extraordinary instrument at this time, especially upon these two remarkable sections, so contradictory in phraseology and so lacking in that affability which is in keeping with the spirit of harmony that everywhere prevails.

In the first place it should be remembered that the American Medical Association recently evolved from the academic to the incorporate state. In its former condition it made much of its code of ethics, a form of words entirely appropriate to the period of its adoption, but which served for half a century to repress independence in medicine. As an academic body, corresponding as it did to a large debating society or lyceum, it could adopt a code suited unto itself, no matter how intolerant or contrary to law, and yet be consistent and logical; but when it became an incorporate body with a legal existence, a code in any degree contrary to the provisions of the laws of any state became inoperative because illegal.

It may be observed of the first section above quoted that it is of questionable propriety, because an assumption of superiority is not good form in any walk of life, and is almost sure to be resented by those whom it concerns the most. As to the next section, also quoted, it is clearly contrary to the law of every state or political division having a state examining board, now some fifty in number; besides, its enactment would be contrary to the terms of the statute under which the association is incorporated, hence void of effect.

There are no sects in medicine known to law, and to refer to sectarian physicians in specific terms is quite out of place in this age. Moreover, those referred to as practising a "sectarian system of medicine," have been duly licensed by the state to all the rights, privileges, distinctions, duties and emoluments relating to the practice of medicine and surgery, and the courts will not hesitate to maintain them in such rights.

If the American Medical Association must needs have a code of ethics, though it seems to have run along very well for a year

without one, would it not be well to make a simple, brief, dignified declaration of principles, rather than enact this archaic paper, so suggestive of the Devonian period?

These observations are based on the assumption that the purpose of the American Medical Association is in very fact what its constitution declares it to be, "to federate into one compact organisation the medical profession of the United States." This high and noble object and intention declared by the constitution, expounded by President Reed and reaffirmed by President Wyeth, cannot but mean to include every legally qualified physician in the national domain, many of whom, of course, are not now members of this great organisation. We have written seemingly in behalf of these latter, but in deeper reality on behalf of the "one compact organisation of the medical profession" which we are desirous that the American Medical Association shall become.

A Voluntary National Examining Board.

AT THE recent meeting of the National Confederation of State Medical Examining and Licensing Boards at Saratoga, the question of interstate reciprocity of licensure was again discussed, this time under a new proposition. It has been suggested many times and in several forms that a National Board be created. The impossibility of such action by congress has been pointed out time and again. The reasons are so apparent as to preclude the necessity of further discussion.

Now comes the proposal to establish a voluntary national board made up of seven members--namely, the Surgeon-Generals of the three services, two from the American Medical Association, one from the Congress of American Physicians and Surgeons, and one from the National Confederation of State Medical Examining and Licensing Boards. This proposition came before the latter organisation at Saratoga and was referred, after ample discussion, to a committee for a report as to its feasibility. The report is as follows:

In the opinion of your committee this Confederation cannot endorse nor approve such a proposition for the following reasons: (1) A Voluntary National Examining Board would have no power, no authority, nor legal right to exist; (2) no guarantee could be given of the continuance or permanency of such voluntary board, even were the laws of the several states so modified as to meet its requirements; (3) being a voluntary board there could be no legal manner of con-

stituting, changing or limiting its membership, or of defining its duties; (4) such a board would be representative of the profession only, and of the regular profession alone; (5) without the endorsement of a state board authorised by law to grant a license to practise, a certificate of qualification from the proposed voluntary board could have no value whatever, and under the existing laws of the several states the state examining boards are required to conduct the examinations, and such boards cannot evade nor surrender such duty, even if they desired to do so; (6) to attempt the stupendous task of securing the amendments to the existing laws regulating the practice of medicine in the several states would entail enormous labor and expense, and would probably endanger the laws themselves.

American Medicine, in its issue of June 14, 1902, makes the following intelligent comment upon the subject:

THE EVOLUTIONARY FACTOR IN MEDICAL LICENSURE AND RECIPROCITY.—To those capable of reading between the lines, the adverse report of the National Confederation upon the proposal to establish a Voluntary National Board of Examiners will have a vast significance. We have repeatedly called attention to some of these phases, but all are based upon the fundamental principle of careful evolution by modification and progress along lines indicated by established laws and present facts. There must be evolution, not revolution, in order that finally harm may not be done to all in the effort to do away with temporary and individual hardships and injustice. A voluntary board is simply not feasible and would undoubtedly destroy the substantial progress in reciprocity already attained and the more perfect results that are surely coming by the outworking of present tendencies and aims. It is constantly forgotten that in the long run there can be no absolute settlement of the great problem of reciprocity until there is a consent and practical harmony on the part of all the states as to the standards of preliminary education. This places far in the future the ultimate solution of the question, because the states cannot and, moreover, should not, hurry too much the orderly progress by any revolutionary enactment of remarkable laws. The greatest danger lies in the unit of the Confederation report, that in the present condition of the popular and legislative mind any extensive attempt to tamper with the great body and attainment of medical laws would at once bring the whole structure tumbling to ruins about us. In the meantime, by individual and considerate action, state boards can do a great deal toward extending to incoming older practitioners from other states who are professionally and socially honorable a courteous welcome which shall do away with many instances of injustice which have taken place in the past. These exceptional cases, however, should not make us forget our greater duty to the entire profession and especially to the profession of all the future.

Substitution and Imitation Again.

ALMOST at the time we were writing an article relating to this subject that appeared in our edition for June, a trial was going on in New York that resulted in the conviction and fine of a druggist for substituting another preparation in place of the one prescribed. Messrs. Fairchild Brothers & Foster, the well-known manufacturing chemists, a house whose integrity is unquestioned, for some time past have been aware that imitation mixtures have been dispensed in place of their essence of pepsin. They have instituted prosecution in several instances, and the result in one of these is thus told in the New York press of May 24, 1902:

In Special Sessions on last Tuesday before Justices Wyatt, McKean and Hinsdale, Clarence D. Bowman, a director of the Lewis A. Bates Company and the manager of their drug store in No. 739 Sixth avenue, pleaded guilty to having violated section No. 364 of the penal code in using another preparation in place of essence of pepsin manufactured by Fairchild Brothers & Foster, in filling prescriptions calling for the latter preparation. He was fined \$50.

It appeared that on several occasions when physicians had prescribed Fairchild's pepsin Bowman had delivered the imitation mixture. Bowman said he was sorry for what he had done, but had no excuse to offer. In imposing sentence Justice Wyatt said that the offense was a most serious one, and that a heavier penalty would have been imposed had not the injured firm recommended leniency by reason of its being the defendant's first conviction.

We are pleased to record this additional conviction for a crime that ought to be punished with all the severity the law permits. It is a subject in which physicians take a deep interest and they should unite with druggists and pharmacists in bringing all such offenders to the bar of justice.

THE Buffalo Society for the Prevention of Tuberculosis is to be congratulated upon the good service it rendered the citizens of Buffalo through a public meeting held at the Central Presbyterian Church on the evening of May 30, 1902. Dr. Herman M. Biggs, medical officer of the New York board of health, who may be regarded as a specialist in the prevention and management of tuberculosis, addressed a large audience on consumption and its prevention. During his discourse Dr. Biggs made many telling points and especially emphasised the fact that pul-

verised dry sputum was the chief source of communicating the disease from man to man.

The society recently elected the following-named officers for the current year: president, Dr. Benjamin G. Long; vice-president, Dr. Henry R. Hopkins; treasurer, Dr. A. H. Briggs; secretary, Dr. William G. Bissell.

DR. GEORGE RYERSON FOWLER, of Brooklyn, has recently instituted a series of suits to collect medical fees from patients who go to hospitals for the purpose of securing gratuitous services in surgical operations, though able to pay for the same. It is a practice that should be broken up and Dr. Fowler is to be congratulated upon the valuable services he is rendering hospitals, physicians and the general public in the premises. Thus far all the suits have been decided in his favor. Recently another has been disposed of before Justice Van Wart, in the 11d District Municipal Court, who awarded to William E. Taylor \$160 for professional services rendered to Julius Anderson and his fourteen-year-old daughter. Dr. Fowler assigned his claim to Mr. Taylor. An operation for cancer of the lower jaw was performed upon Anderson by Dr. Fowler. The former claimed that as he had paid \$7 a week for treatment in the Seney Hospital, where the operation was performed, no additional charges could be brought against him. Medical services were rendered to Miss Anderson.

Justice Van Wart allowed the claim on the ground that "when one accepts a beneficial service from another the law presumes an intention on his part to pay therefor the reasonable value of the services rendered, and an agreement to that effect is implied."

THE Buffalo Fresh Air Mission has begun its summer campaign with its usual energy. One of its special provinces is to foster the fresh air mission hospital at Athol Springs where many improvements have been planned for the coming season. The subject of enlarging the hospital is under consideration. The present capacity is 100, and last year there was a suggestion of overcrowding.

Mr. Jacob A. Riis, of New York, recently gave a lecture which has stimulated interest in the work, and the officers feel that there was never a more opportune time than now for raising funds for any branch of the Fresh Air Mission.

The newly elected officers of the hospital are: president, Frederick Truscott; vice-presidents, Paul C. Ransom, Dr. D. W. Harrington; treasurer, Henry W. Sprague; secretary, John R. Williams; general manager, Frederic Almy; manager, Marc W. Comstock; cradle bank manager, W. H. Wright, Jr.; medical staff, Irving M. Snow, Dewitt H. Sherman, Albert T. Lytle, Eugene A. Smith, Nelson G. Russell and Lorenzo Burrows, Jr.

DR. GEORGE MILLER STERNBERG, surgeon-general U. S. Army (retired), was tendered a dinner at Delmonico's, New York, Friday evening, June 13, 1902, by about 100 prominent physicians and surgeons from various portions of the country. Dr. E. G. Janeway, of New York, presided and felicitous speeches were made by several of the gentlemen present commendatory of General Sternberg's military and scientific professional work. Dr. Sternberg's rare accomplishments as well as his courageous service in two wars were dwelt upon and the occasion was one long to be remembered by this able, efficient and brave officer. It is to be regretted that the operation of the law is imperative and removes from active service such a capable man while yet in the full vigor of manhood and plenitude of power.

PERSONAL.

DR. FRANK BILLINGS, of Chicago, was elected president of the American Medical Association at the recent annual meeting held at Saratoga, N. Y. He has been known among Chicago's medical practitioners and educators nearly twenty years. He was graduated from Chicago Medical College, now the medical department of Northwestern University, and, after a year spent as an interne at the Chicago Hospital, engaged in post-graduate work at Vienna and Paris. Returning to Chicago, he accepted the chair of professor of medicine in Chicago Medical College, resigning to accept a similar position with Rush Medical College. He is now the dean of the latter college, and the head of its medical department. He is also attending physician to the Presbyterian and Cook County hospitals.

Dr. Billings is a man in the vigor of his manhood and is a credit to the American profession. His appearance is indicative of everything that may contribute to a successful administration of the great office to which he has been called.

DR. EUGENE SMITH, of Detroit, U. of B., '66, recently paid a visit to Buffalo where he was welcomed by many of his old friends.

DR. JAMES WRIGHT PUTNAM, of Buffalo, was elected president of the American Neurological Association at its twenty-eighth annual meeting, held in New York, June 5-7, 1902.

DR. AND MRS. ALLEN A. JONES, of Buffalo, sailed about the middle of June to spend two months in Europe.

DR. JOHN O. ROE, of Rochester, read a paper entitled, Deformities of the nose, and their repair, at the semi-annual meeting of the Medical Society of the County of Erie, June 17, 1902. It was an interesting exposition of ingenious and skilful surgery and was received with marked attention.

DR. EDWIN RICKETTS, of Cincinnati, President of the American Association of Obstetricians and Gynecologists, has been elected professor of abdominal and gynecological surgery in the Cincinnati College of Medicine and Surgery.

DR. AND MRS. HERMAN MYNTER, of Buffalo, sailed June 17, 1902, on the "Patricia" for Plymouth, Eng. Their two daughters, Emily and Agnes, will proceed with them to Switzerland.

DR. SYDNEY A. DUNHAM, of Buffalo, goes abroad about the first of July for a three months' stay.

DR. REGER CUTTING, of Buffalo, has been appointed medical officer on the steamship "Northwest." In the fall Dr. Cutting expects to take a position on one of the Pacific steamships as surgeon.

DR. CHARLES R. BORZILLERI, of Buffalo, has been appointed attending physician in the department of diseases of children of the Buffalo Hospital of the Sisters of Charity.

DR. W. E. PARKER, of New Orleans, located at Hot Springs, Ark., June 15, 1902, to continue the practice of his profession.

DR. ALEXANDER McNEIL BLAIR, of Buffalo, sailed on the "Zealand" for Antwerp, June 4, 1902, to be gone until about September 1. Dr. Blair will spend most of his time in the interior of Germany. He goes for study and pleasure.

DR. JOHN S. McFARLAND, of Buffalo, was graduated from Johns Hopkins University June 18, 1902, and will soon go to Germany for a special course in medicine and surgery, to be absent a year.

PROFESSOR O. HAAB, of Zurich, the eminent oculist, visited Buffalo recently the guest of A. A. Hubbell. After a day at Niagara Falls, Dr. Hubbell entertained Professor Haab at luncheon at the Saturn Club together with several Buffalo physicians.

OBITUARY NOTES.

DR. JACOB F. MEYER, of Buffalo, one of the most capable of the younger surgeons of this city, was killed in his office at 191 William Street, Friday evening, June 20, 1902, whether by design or accident has not transpired at this writing. While Dr. Meyer was attending to his patients during his evening hour, his wife hurriedly came into his office, remained a few minutes, hastened out, and soon afterward he was found dead on the floor from a pistol wound of the heart. Mrs. Meyer, who is in custody, says that she and her husband became engaged in a struggle for the possession of the pistol which exploded with the fatal results stated. Dr. Meyer was a graduate of Niagara University, class of 1891, afterward serving as interne at the Buffalo Hospital Sisters of Charity, and then several years as resident assistant at the Woman's Hospital. He developed an aptitude for surgery and is credited with having made many skilful operations with successful results. His sad end was a great shock to the community, and especially to his numerous immediate friends.

DR. SAMUEL R. COCHRANE, of Albion, U. of B. '67, died in his office of apoplexy May 24, 1902, aged 63 years. Dr. Cochrane was one of the most prominent physicians of his region and has been a successful practitioner for more than 25 years. Besides a widow and one sister he leaves a brother, Dr. Royal E. Cochrane, of Penfield.

DR. EMORY C. ABBEY, of North Tonawanda, died at the home of his daughter, Mrs. E. C. McDonald, aged 70 years. Dr. Abbey was born in Leicester, in 1832. He was a practising physician for many years, but in the spring of 1886, having given up his professional work, he became the proprietor of the Buffalo Last Works.

DR. J. H. TILDEN, of Buffalo, died suddenly at his home 198 Franklin Street, June 14, 1902, aged 74 years. Dr. Tilden graduated in medicine in 1850, and at one time served as assistant surgeon of the 74th regiment, New York State National Guard. In 1859, owing to his father's ill health he joined him in business and after the former's death continued to conduct the business of contracting and building in his own name. He has constructed some of the largest buildings in Buffalo, including several churches, theatres, hospitals and private residences. He was a member of the Buffalo Historical Society and of several other organisations. Two sons, George T. M. and Hyde F. Tilden, and two daughters, Mrs. H. J. Coleman and Miss Charlotte Tilden, survive. His wife died a few years ago.

DR. SELDEN H. TALCOTT, Superintendent of the State Homeopathic Hospital, at Middletown, died June 15, 1902, aged 60 years. Dr. Talcott had been the head of the institution for 25 years and was widely known as an authority on nervous diseases and as an alienist. He had been ill but three weeks.

DR. JOSEPH EASTMAN, of Indianapolis, died June 5, 1902, aged 60 years. He was born in Fulton County, N.Y., and enlisted in the 77th New York volunteer infantry, early in the civil war. Later he served as assistant surgeon and after being mustered out of service he located in Indiana. He became an abdominal surgeon of prominence and was dean of one of the medical colleges at Indianapolis. Among his surviving kin are two sons, Thomas Barker and J. Rilus Eastman, who are physicians of rising fame in that city.

THE Rev. Dr. Anson Judd Upson, chancellor of the University of the State of New York and ex-president of Auburn Theological Seminary, died at his home at Glens Falls, at the age of 82. Chancellor Upson was a pronounced friend of higher educational standards, having been engaged during all of his active life either in teaching or in some way promoting advancements in educational methods. In 1874 he was elected by the legislature a regent of the University of the State of New York; he was

made vice-chancellor in 1890, and in 1892 was elected chancellor of the University as the successor of George William Curtis. In his capacity as chancellor he had signed every state license to practise medicine since the law creating state examining boards went into effect.

SOCIETY MEETINGS.

THE American Association of Obstetricians and Gynecologists will hold its fifteenth annual meeting at The Raleigh, Washington, D.C., Tuesday, Wednesday and Thursday, September 16, 17 and 18, 1902, under the presidency of Dr. Edwin Ricketts, of Cincinnati, O. A list of forty papers has been offered, and a meeting of great interest is in prospect. Members desirous of securing rooms should address Mr. T. J. Talty, manager, The Raleigh, Washington, D.C.

THE Association of Military Surgeons of the United States held one of the most successful meetings—its eleventh annual—at Washington, D. C., June 5-7, 1902, under the presidency of Lt.-Col. John Van Rensselaer Hoff, Deputy Surgeon-General U. S. Army. The program was filled with excellent papers and the attendance was large.

The newly elected officers are: president, Brig. Gen. Robert A. Blood, Surgeon-General of Massachusetts; first vice-president, Medical Director Wise, U. S. Navy; second vice-president, Surgeon-General Walter Wyman, U.S. Marine Hospital Service; treasurer, Lieut. Herbert A. Arnold, Assistant-Surgeon Penn. National Guards; secretary and editor, Major James Evelyn Pilcher, Brigade Surgeon U. S. V., captain, retired, U. S. A.; assistant secretary, Lieut. T. W. Richards, Past Assistant-Surgeon, U.S.N. Major A. H. Briggs, M.D., N.Y.N.G., of Buffalo, is chairman of transportation committee.

The association is in a prosperous condition and has a membership of 700. Representatives of foreign governments attended the meeting, delegates from England, Canada, Mexico, Italy, Austria, France and Japan, being present. The association is about to be incorporated, a bill for that purpose being in the present congress. The next meeting will be held in Boston, in June, 1903.

THE American Urological Association held its first annual meeting at Saratoga, June 13 and 14, 1902, under the presidency of Dr. Raymond Guit  ras, of New York. The program was an interesting one, beginning with the president's address on Advances in urology. The attendance was large and the meeting was satisfactory in every respect.

THE Buffalo Academy of Medicine held its annual meeting Tuesday evening, June 17, 1902, at which Dr. Herman E. Hayd was elected president, and Dr. Francis W. McGuire was elected secretary for the current year.

THE American Academy of Medicine held a large meeting at Saratoga, June 7-9, 1902, at which an interesting program was disposed of. The influence of the academy is increasing year by year. Dr. Charles McIntire, of Easton, was elected president.

THE Buffalo Academy of Medicine held meetings during the months of May and June as follows:

Section on Obstetrics and Gynecology.—Tuesday evening, May 27. Program: Some thoughts connected with breach delivery, P. W. Van Peyma. Complications and degenerations of fibroid tumors, C. C. Frederick. Annual election of officers of this section.

Annual Meeting.—Tuesday evening, June 17. Program: Election of officers; reports of officers. An address by the retiring president, Charles G. Stockton. Installation of newly elected officers.

THE United States Pension Examiners of the State of New York held a meeting at Saratoga Springs, June 9, 1902, at which the following program was observed: (1) Address of welcome, E. Valencourt Deuell, President of Saratoga Board. (2) Defects in reports of examining surgeons, with suggestions for their improvement, J. F. Raub, Medical Referee Pension Bureau, Washington, D. C.; discussion opened by William Warren Potter, Buffalo. (3) The influence and value of organisation, George W. Miles, Oneida; discussion opened by W. L. Ayer, Owego. (4) The advantages of organisation from the

point of view of the special examiner, Wheelock Rider, Rochester; discussion opened by John N. Oliver, Brooklyn.

The paper of Dr. Raub attracted great attention, as it dealt with a subject of much importance to the members. It was the sense of the meeting that a National organisation should be perfected and steps were taken to that end. Great credit is due Dr. William A. Howe, of Phelps, for the success of the Saratoga meeting.

HOSPITAL NOTES.

ANNOUNCEMENT is made by Dr. Nelson W. Wilson, and Dr. James A. Gardner, attending surgeons in the department of kidney and genitourinary diseases at the Emergency Hospital, corner of Pine and Eagle Streets, of the completion of the work of equipping the genitourinary dispensary. Patients who are unable to pay for treatment are received each day at 11.30. Dr. Gardner has Monday, Wednesday and Friday; Dr. Wilson, Tuesday, Thursday and Saturday.

A NEW dispensary will be opened about July 1, 1902, by Dr. Lillian Craig Randall, of the Riverside Hospital, who has been granted a license by the state board of charities to open an out-patient department of her hospital. It is to be located on the ground floor of the Fitch Institute. The department will include a dispensary to the poor and the care of emergency cases. One branch of the institution will be a department for the treatment of tuberculosis. A trained nurse will be in attendance to care for emergency and other cases. Dr. Randall already has a handsome ambulance of modern make and equipment, which will be used for the new dispensary.

The following-named physician will serve on the medical staff of the institution: Henry D. Ingraham, John C. Thompson, George F. Cott, H. C. Rooth, J. H. Potter, Grover W. Wende, Charles E. Brownell, James E. King, James Croff, Carro Cummings Croff, Thomas H. McKee, James A. Gibson, Jane N. Frear and Mary M. Huntley.

BOOK REVIEWS.

MORPHINISM AND NARCOMANIA FROM OPIUM, COCAIN, ETHER, CHLORAL, CHLOROFORM, AND OTHER NARCOTIC DRUGS; also the Etiology, Treatment, and Medicolegal Relations. By T. D. CROTHERS, M. D., Superintendent of Walnut Lodge Hospital, Conn., Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. 12mo of 351 pages. Philadelphia and London : W. B. Saunders & Co. 1902. [Cloth, \$2.00 net.]

After an experience of twenty-five years in the treatment of narcomaniacs, the distinguished author has given us his deductions.

Of greatest interest is the chapter devoted to treatment. He considers first the sudden withdrawal as practised by Levinstein. Of this method he says, it is used in station houses and jails—in private practice it is impracticable. Of the rapid reduction he says: The usual method is to reduce the quantity of morphine taken to two or three grains daily, no matter how much the patient has been in the habit of taking. This method requires special surroundings and trained help. Withdrawal of the drug should be complete in ten days. He advises a gradual withdrawal in those persons in whom there is a strong predisposition to exhaustion from overwork, and have used morphine for relief of the fatigue symptoms.

Of cocainism the author reasserts his claim that the victims are often physicians and professional men. That there is but one way of escape for these drug victims, *i. e.*, to give up everything and make a supreme effort for recovery, then with changed surroundings and a competent physician, the prospect of permanent cure is hopeful.

When he discusses tobacco inebriety, we believe that the personal bias has influenced his statements, and that for instance the following sentence will not receive much support from the professional or lay readers: "The excessive user of tobacco is not an accurate, reliable man in all cases; if he is, it is an exception to the rule." "All men are liars, said St. Paul in his wrath, and that was long before tobacco had impaired man's veracity.

All in all, the book is a helpful one and because of Dr. Crothers's vast experience it will be relied upon as a safe guide in the management of these troublesome cases. J.W.P.

PRACTICAL FIRST PRINCIPLES. Simplifying the study of normal and abnormal structure and function, and aiding diagnosis. Designed for the use of students and practitioners of medicine. By A. H. P. LEUF, M. D., associate editor of The Medical Council, Philadelphia. Small 8vo, 105 pages, nearly 50 illustrations. 1901. [Price, \$1.00 net.]

That is the full title page of the weirdest, wooziest work which has wobbled forth into a chilly and unfeeling world in many a moon. There is a preface—of course—and one para-

graph will be sufficient: "The illustrations are almost all original and diagrammatic, the former with a view to avoiding marked connection with any given text-book, and the latter so as to impress a principle upon the reader's mind rather than a set picture which he never sees for the reason that it does not exist."

That alone is enough to Peleeize the book—it is a book because it has a number of pages and a front and a back cover. There has been a growing suspicion that in these days of color work, photo-engraving, we were outgrowing the diagrammatic idea, but Dr. Leuf doesn't believe so along with the rest of us. This is shown most strikingly in his illustrations, one of which, the "schematic representation of a liver lobule," looks as much like an old-fashioned poor house pine coffin as it does like a pair of papa's pants cut down for Willie; and you can take your choice according to whether you are cold-hearted or merely sympathetic.

In the effort to hew close to the line of originality, letting the chips fall where they may, and "avoid marked connection with any text-book," great and complete success has been achieved. The illustrations are not like those in any other text-book in the world. Montgomery, of Texas, is the original offender, for according to the author's opening words in Chapter I., Montgomery, of Texas, in 1881, asked: "Are we cell aggregates?" That plaintive cry from the place where they raise cattle and hell, was the beginning of all this trouble. The second sentence of the first chapter is: "There can be no doubt of it!" That should have been enough. It answered Montgomery's question, and it should have been the end of the book. The publishers have paid Dr. Leuf a pretty compliment in sending forth his book, but they have done him a grievous wrong and incidentally wasted 106 pages of fair book paper and a couple of deep blue covers. It isn't big enough to be in the way and it's too little to stand alone. So, what's the use?

N.W.W.

A PRACTICAL MANUAL OF INSANITY. For the Student and General Practitioner. By DANIEL R. BROWER, A. M., M. D., LL. D., Professor of Nervous and Mental Diseases in Rush Medical College, in Affiliation with the University of Chicago, and in the Post-Graduate Medical School, Chicago; and Henry M. Bannister, A. M., M. D., formerly Senior Assistant Physician, Illinois Eastern Hospital for the Insane. Octavo, 426 pages, with a large number of full-page inserts. Philadelphia and London: W. B. Saunders & Company. 1902. [Cloth, \$3 00 net.]

This work is essentially clinical in its presentation of the subject. The various forms of insanity are clearly described and a simple classification has been adopted. The authors have included a chapter giving the classification of different writers in a very useful table of parallel columns. There is an excellent chapter on the general diagnosis and prognosis of mental disease.

General rules of procedure in the examining of supposedly

insane persons are very difficult to formulate. The advice, "It is not always necessary to state to him that he is suspected of insanity, but it is seldom, if ever, advisable to use deception or appear before him in a false character," is sound and is a rule that should be followed. We believe that the insane must be treated in a frank manner; that they must be told, except in cases of acute mania or in those forms of insanity in which there is no understanding, that the object of the visit is to ascertain the general health of the patients. The rules for managing the patients who are sent to institutions and the general care of patients when home treatment has been decided upon, are practical and helpful.

The discussion of the subject of paranoia is scientific and shows that the experience of the authors with this type has been large and their observations accurate. The book closes with a chapter on the ethics of insanity. The question of marriage of those with an ancestral taint of insanity is discussed. The question as to the continuance of sexual relations of persons who have recovered from mental disease is considered. The authors reply cautiously that in some cases it may be safe.

The ethical question of secrecy is an interesting one, and the obligation of the physician is clearly stated. The volume is practical in character and covers the general subject most thoroughly.

J.W.P.

SIMON'S CLINICAL DIAGNOSIS. A Manual of Clinical Diagnosis by means of Microscopical and Chemical Methods. For Students, Hospital Physicians and Practitioners. By CHARLES E. SIMON, M. D., author of *Simon's Physiological Chemistry*, etc. New (4th) edition, thoroughly revised and enlarged. Octavo, 608 pages, illustrated with 139 engravings and 19 plates in colors. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$3.75 net.]

Four editions of this manual have appeared since 1896, which is strong testimony as to its value and appreciation by the students and professional men, for whom it is more especially intended. During this period there has been much advance in laboratory methods of research, particularly as applied to clinical diagnosis, and the work of this author has contributed not a little toward this improvement. Moreover, there is a constantly increasing appreciation of the value of clinical diagnosis by means of the microscope and chemistry.

The methods of research by these methods are growing simpler as experience increases, so that now the general physician, however busy he may be, can apply them in a practical manner without exhausting a great deal of time. In this edition considerable new material has been incorporated, which serves to keep it abreast of the period, and references to the literature relating to this important topic have been added, all of which will serve to increase the value of the work to original worker, student and teacher. The illustrations, too, have been increased

in number as well as in value, until now the manual becomes one of the foremost works of its kind, and it appeals strongly to everyone who is studying, teaching or practising this branch of medical science.

SAUNDERS'S MEDICAL HAND-ATLAS. Atlas and Epitomé of Otology. By GUSTAVE BRÜHL, M. D., of Berlin, with the collaboration of Professor Dr. A. Politzer of Vienna. Edited, with additions, by S. MacCuen Smith, M. D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 colored figures on 39 lithographic plates, 99 text illustrations and 292 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$3.00 net.]

With all the credit due to Saunders for the excellent manner in which this book has been published, and that due Brühl, the author, and Prof. Politzer, the collaborator, the American editor, Dr. S. MacCuen Smith, of Philadelphia, must not be overlooked. It is largely due to his excellent and common-sense handling of the work that it is as valuable as it really is, as a text-book and a teacher of a specialty. The book is a splendid addition to the Saunders series, and aims to be both didactic and clinical in its teaching. It is a work which will be of untold benefit to students and of rare assistance to the general practitioner, who every day in his practice runs across ear cases which he will find clearly set forth, described, pictured and treated in this otology.

The illustrations comprise 244 colored figures and 99 text illustrations, showing the anatomy of the ear and portraying pathologic changes in so excellent a manner as to make them of untold value.

Dr. Brühl was extremely fortunate in having his former chief, Prof. Politzer, in collaboration on the work, for in addition to the latter's advice and deep scientific knowledge, his rare collection of specimens was freely used in illustrating, and have done much to make the volume the very complete work it is.

N.W.W.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Ten volumes. Issued monthly, under the general editorial charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Vol. III. The Eye, Ear, Nose and Throat. Edited by CASEY A. WOOD, ALBERT H. ANDREWS and T. MELVILLE HARDIE. December, 1901. Pp. 346. Chicago: The Year Book Publishers. [Price, \$1.50.]

In the preparation of the topics for this book that upon the eye was committed to Casey A. Wood, upon the ear to Albert H. Andrews, and upon the nose and throat to T. Melville Hardie, all of Chicago. It must be conceded that the selections are good ones, and that each has done his work with care. This series of year books, of which the one before us is the third volume, has been prepared for the special use of general practitioners of medicine. In the special branches dealt with in this

number it is necessary that he must have intelligent information, though he may seldom employ it practically. It is obviously out of place to offer a critical review of the book here, but we may invite attention with propriety to that part presenting mastoid disease as being worthy of note. So many obscure symptoms arise from lesions of the middle-ear and mastoid that differentiation is often a matter of expertness, but the instructions herein presented are extremely helpful to practical physicians.

SAUNDERS'S MEDICAL HAND-ATLASES. Atlas and Epitomé of Operative Surgery.

By DR. OTTO ZUCKERKANDL, Privatdocent in the University of Vienna. From the second revised and enlarged German edition. Edited, with additions, by J. Chalmers DaCosta, M. D., Professor of the principles of Surgery and Clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second edition, thoroughly revised and greatly enlarged. With 40 colored plates, 278 text illustrations and 410 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$3.50 net.]

When this work was first published it was greeted generally as an excellent and practically helpful book. The second edition which has now been put out is an improvement on the first, in that it is larger, and has been brought strictly up to date, and it is apparent even to a most casual observer that the work of revision has not been hastily done, but thoroughly and exhaustively, and everywhere from cover to cover are evidences of careful scrutiny. The illustrations have been increased in number and in addition to being beautifully artistic are scientifically correct. Particularly is this so of those colored plates which are intended to show operative methods.

A number of the chapters have been rewritten and all the newer operations are described minutely and clearly. There is no volume published which can so nearly take the place of clinical instruction as this.

N.W.W.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCE. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten. Edited by ALBERT H. BUCK, M. D., New York City. Volume IV. Illustrated by chromolithographs and 859 half-tone and wood engravings. Nine volumes, imperial 8vo. New York: William Wood & Co. 1902. [Price, muslin, \$6.00 per volume; leather, \$7.00 per volume; half morocco, \$8.00 per volume.]

In the editorial columns of the June edition of the JOURNAL we invited attention to this volume of the reference handbook, in commenting upon the article on examining and licensing boards, written by Mr. James Russell Parsons, Jr., of the University of the State of New York. We take pleasure in further mentioning this practical book in this place, because from several viewpoints it is the best of the first half of the set. It is, obviously, out of place to undertake a critique of the volume article by article, but we may point out, with great pro-

priety, the fact that in this book the monograph on fractures, by Edward L. Keyes, Jr., is deserving of the closest scrutiny. It is abreast of the period in its teachings and supplies just that information the busy physician requires; besides, it is copiously illustrated with wood engravings and a colored plate that are faithful depictions of real conditions.

The article on gynecological examinations is another excellent presentation of an important subject, also well illustrated. The book is full of good material, which is well arranged and accessible.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. With Especial Reference to the Clinical Application of Drugs By JOHN V. SHOE-MAKER, M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico Chirurgical Hospital. Fifth edition, thoroughly revised. Octavo, pages viii.—1143. Philadelphia: F. A. Davis Co. 1901. [Extra cloth, \$5.00 net; sheep, \$5.75 net, delivered.]

This new edition, the fifth, of this standard treatise will receive a cordial welcome from undergraduates and physicians, as have the previous issues. Therapeutics has progressed with the other departments of medicine and new editions of these works are needed at frequent intervals. The author of this book has taken advantage of his opportunity and reviewed the literature of the subjects he deals with, incorporating in his treatise such methods, drugs or chemical improvements relating to the treatment of the sick as have value.

In it, too, he has recorded the finding of new applications for some of the older articles of the *materia medica*, the later researches concerning the physiological action of remedies, and such new medicinal plants as have been found efficacious are described. The preparations of both the British and American pharmacopeias are given, which makes the book additionally valuable for reference. For these and other reasons that might be enumerated, this treatise has become one of the most popular of its kind.

THE DIAGNOSIS OF NERVOUS AND MENTAL DISEASES By HOWELL T. PERSHING, M. Sc., M. D., Professor of Nervous and Mental Diseases in the University of Denver; Neurologist to St. Luke's Hospital, etc. Small octavo, illustrated. Philadelphia: P. Blakiston's Son & Co. 1901. [Price, \$1.25.]

The object of this book is to facilitate the recognition of nervous and mental diseases by physicians who are not specialists in neurology. It does not claim to take the place of a textbook—but serves to make a textbook more serviceable. The author has followed the plan adopted by botanists and other scientists in classifying according to definite morphological conditions and has evolved a very clever and useful scheme. This could hardly be applied to another branch of

medicine except neurology, and here it is most applicable. The contents include, besides the recognition of special diseases by the tables, the examination of the patient and the general significance of symptoms; the recognition of organic diseases; the principles of localisation; the signs of hysteria; the diagnosis of neurasthenia and mixed forms of disease. It is an admirable, ingenious production.

W.C.K.

THE DRUG HABITS AND THEIR TREATMENT. A Clinical Summary of Some of the General Facts Recorded in Practice. By T. D. CROTHERS, M. D., Superintendent Walnut Lodge Hospital, Hartford, Conn.; Professor Diseases of the Brain and Nervous System, New York School of Clinical Medicine. Pp. 96. Chicago: G. P. Englehard & Co. 1902. [Price, \$1.00 net.]

For many years the author of this little work has been doing pioneer work in the field of dipsomania and no one has disputed his title to "the leading authority" in this country on the disease of inebriety. A work from his pen is worthy of careful reading and consideration and must carry conviction even to unbelievers. The book is divided into four chapters: I. Habit and damages of alcohol; II. Dipsomania; III. Opium inebriety; IV. Cocain and other drug habits. The increasing demand for stimulants of this order makes it imperative for physicians to be alive to the dangers of their overuse, and to know how to direct treatment when these cases fall into their hands. This is the object of the book.

W.C.K.

THE MEDICAL NEWS POCKET FORMULARY. New (4th) edition. Containing 1,700 prescriptions, representing the latest and most approved methods of administering remedial agents. By E. QUIN THORNTON, M. D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. Carefully revised to date of issue. In one wallet-shaped volume, strongly bound in leather, with pocket and pencil. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, \$1.50 net.]

By some mischance the third edition of this excellent formulary, received over a year ago, escaped notice in these columns—a circumstance which we very much regret. Now comes the fourth edition, and we can only repeat what we have said about earlier issues—namely, that it is one of the best of its kind and excels most of them in its convenience. The descriptive heading above given is an excellent resumé of the contents and style of the book, which every physician will find extremely useful.

TRANSACTIONS OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION at the Twenty-third Annual Meeting, held at New Haven, Conn., May 27, 28 and 29, 1901. Edited by the Secretary, JAMES E. NEWCOMB, M. D. New York: The Rooney & Otten Printing Co. 1901.

As usual, the annual volume issued by this excellent society for 1901, is replete with interest. The president's address, by Dr. Henry L. Swain, presents an interesting review of the work

the association has wrought, under the title, Laryngology and its place in medical education. When the association was formed the laryngologists were few and scarcely known outside the larger centers of population. Now, everybody who thinks he sees an easy road to success through this specialty, takes a six weeks' course somewhere, or with somebody, and behold! he is a laryngologist, or at least a rhinologist.

A painful reminder of the sad death of Dr. William H. Daly, about a year ago, is presented in the beautiful tribute paid to his memory through the biographic memorial written by Dr. John O. Roe, of Rochester. A few typographic errors in the book have been corrected by supplementary paster slips—a most excellent plan.

A MANUAL OF OPHTHALMOSCOPY. For Students and General Practitioners. By J. E. JENNINGS, M. D. (Univ. of Penna.), Author of Color-Vision and Color-Blindness, etc.; formerly Clinical Assistant, Royal London Ophthalmic Hospital. Duodecimo, pp. 180, with 95 illustrations and one colored plate. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, \$1.25 net.]

A knowledge of the use of the ophthalmoscope should be as common as that of the stethoscope—and not be limited to the ophthalmologists. At the present time the use of this instrument is being taught in our medical schools, and this manual is an example of what is being done in some of the western colleges. Dr. Jennings is to be congratulated on his efforts and also that he is striving to disseminate knowledge on this subject. The text is systematically arranged and profusely illustrated with many original black-and-white drawings and an excellent colored frontispiece.

W.C.K.

THE POCKET GRAY OR ANATOMIST'S VADE-MECUM. By the late EDWARD COTTERELL, F.R.C.S. Fifth edition, revised and edited by C. H. FOGGE, M.D., M. S. (London), F. K. C. S., Surgeon Demonstrator of Anatomy at Guy's Hospital. Twentieth thousand. New York: William Wood & Co. 1901. [Price, \$.]

This convenient anatomical reminder has stood the test of observation and experience running back through many years. It is always well for the undergraduate and junior physician, not to mention the more matured practitioner, to have at hand some such book to serve in the haste of study or work, when the larger volume cannot be consulted, and there is none better than this one. It is based upon Gray's Anatomy, which is a sufficient endorsement.

A BRIEF MANUAL OF PRESCRIPTION-WRITING IN LATIN OR ENGLISH. For the use of Physicians, Pharmacists and Medical and Pharmacal Students. By M. L. NEFF, A.M., M.D., Cedar Rapids, Ia. Pages v.—152. Size, 8 x 5¾ inches. Philadelphia: F. A. Davis Co., Publishers, 1914-16 Cherry St. [Extra cloth, 75 cents net, delivered.]

A manual of this kind is of value to the beginner, who should start right in writing prescriptions. Too often little heed is paid

to correct English, not to criticise the Latin of the writer of prescriptions. A careful study of this manual will serve to aid in correcting or perfecting both defects. A number of useful tables are added to the main features of this work, and some blank pages are provided for the preservation of such formulæ as may prove of value.

A MANUAL OF GYNECOLOGY FOR THE USE OF STUDENTS AND GENERAL PRACTITIONERS. By F. H. DAVENPORT, A. B., M. D., Assistant Professor in Gynecology, Harvard Medical School. New (4th) edition, revised and enlarged in one 12mo volume of 402 pages with 154 illustrations. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, cloth, \$1.75 net]

This superior manual, now in its fourth edition, is one of the best of the smaller works on gynecology, and in some respects excels the others. It is a true manual in size and make-up, but it also contains much that is usually reserved for the general treatise. For example, hysterectomy, the most formidable operation in the gynecological domain, is given a brief but excellent description which is well illustrated. Fibromyomata, too, are well described as indeed are some other topics that are usually found only in textbooks. The increased demand for the book, when it enlarged its scope by invading the surgical field, as it did in its third edition, gives ample testimony of its appreciation by the advanced practitioner. In this edition the same lines have been followed and its value continues to increase with each new issue. We commend it also to the student, for that part of the work which may be termed elementary is addressed more especially to him.

QUIZ COMPENDS. Compend of General Pathology. By ALFRED EDWARD THAYER, M. D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital. Containing 78 illustrations. Philadelphia: P. Blakiston's Son & Co. 1902. [Price, 80 cents net.]

If the study of pathology can be stimulated by a quiz manual such as this, then we can not only tolerate but praise the plan of teaching by quiz compends. At all events, this particular book is skilfully arranged by a practical teacher and cannot fail to receive the approbation of those for whom it is intended.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF WISCONSIN. Fourth Year, 1901. Including Constitution and By-Laws. Edited by CHARLES S. SHELDON, M. D., Secretary. Madison: State Journal Printing Co. 1901.

The State of Wisconsin has reason to be proud of its medical society, judging by the excellent work it performs at its annual meetings. Its transactions compare favorably with those of older and larger states, and the volume is well edited by the accomplished secretary of the society. At the session of 1901, Dr. George M. Gould, of Philadelphia, delivered the address in

medicine, choosing for his subject "Disease and sin." The book contains a number of valuable scientific communications and is better printed and bound than are many transactions' volumes.

BOOKS RECEIVED.

American Edition of Nothnagel's Encyclopedia, Vol. III. Diphtheria. By Wm. P. Northrup, M. D., of New York. Measles, Scarlet Fever and German Measles. By Professor Dr. Th. von Jurgensen, Professor of Medicine in the University of Tübingen. Edited, with additions, by William P. Northrup, M. D., Professor of Pediatrics in the University and Bellevue Medical College, New York. Handsome octavo, 672 pages, illustrated, including 24 full-page plates, three of them in colors. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$5.00 net; Half-Morocco, \$6.00 net.]

Diseases of the Nose, Pharynx and Ear. By Henry Gradle, M. D., Professor of Ophthalmology and Otology, Northwestern University Medical School, Chicago. Octavo of 547 pages, profusely illustrated, including two full-page plates in colors. Philadelphia and London: W. B. Saunders & Co. 1902. [Cloth, \$3.50 net.]

The Practical Medicine Series of Year Books. Ten volumes. Issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology in the Chicago Post-Graduate Medical School. Volume VI. General Medicine. Edited by Frank Billings, M. S., M. D. Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago. With the Collaboration of S. C. Stanton, M. D. May, 1902. 12mo, pp. 271. Chicago: The Year Book Publishers. [Price, \$1.50. Entire series, \$7.50.]

A Practical Treatise on Smallpox. Illustrated by colored photographs from life. By George Henry Fox, M. D., Consulting Dermatologist to the Health Department of New York City. With the Collaboration of S. D. Hubbard, M. D., S. Pollitzer, M. D. and J. H. Huddleston, M. D. In two parts, atlas form. Philadelphia and London: J. B. Lippincott Co. 1902. [Price, \$3.00.]

The Neuroses of the Genitourinary System in the Male, with Sterility and Impotence. By Dr. R. Ultzmann, Professor of Genitourinary Diseases in the University of Vienna. Second edition. Revised, with notes and a supplementary article on Nervous Impotence, by the translator, Gardner W. Allen, M. D., Surgeon in the Genitourinary Department of the Boston Dispensary; Instructor in Genitourinary Surgery in Tuft's Medical College. Illustrated. 12mo, 198 pages. Philadelphia: F. B. Davis Company. 1902. [Price, \$1.00 net, delivered.]

Practical Dietetics. With Special Reference to Diet in Disease. By W. Gilman Thompson, M. D., Professor of Medicine in the Cornell University Medical College, New York City; Visiting Physician to the Presbyterian and Bellevue Hospitals. 8vo, pp. 851. Second edition, enlarged and thoroughly revised. New York: D. Appleton & Company. 1902. [Price, \$5 00.]

Minor Surgery and Bandaging. By Henry R. Wharton, M. D., Professor of Clinical Surgery in the Woman's Medical College, Surgeon to the Presbyterian Hospital, Philadelphia, etc. In one 12mo volume of 612 pages, with 509 illustrations, many of which are photographic. Fifth edition enlarged and thoroughly revised. Philadelphia and New York: Lea Brothers & Co. 1902. [Price, \$3.00 net.]

The Artificial Feeding of Infants. By Charles F. Judson, M. D., Physician to the Medical Dispensary of the Children's Hospital, and J. Claxton Gittings, M. D., Assistant Physician to the Medical Dispensary of the Chil-

dren's Hospital. 12mo, pp. 368. Philadelphia: J. B. Lippincott Company. 1902. [Price, \$2.00.]

Progressive Medicine, Vol. II., June, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 440 pages, 28 illustrations. Philadelphia and New York: Lea Brothers & Co. [Per annum, in four cloth-bound volumes, \$10.00. Per volume, \$2.50, by express prepaid to any address.]

Transactions of the Southern Surgical and Gynecological Association. Fourteenth Annual Meeting held at Richmand, Va., November 12, 13 and 14, 1901. W. D. Haggard, M. D., Secretary. Published by the Association. 1902.

The Practitioner's Manual. A Condensed System of General Medical Diagnosis and Treatment. By Charles Warrenne Allen, M. D., Consulting Genitourinary Surgeon to the City (Charity) Hospital, Consulting Dermatologist to the Randall's Island Hospital, to the Hackensack Hospital, etc. Octavo, pp. 893. Second edition, revised and enlarged. New York: William Wood & Company. 1902. [Price, muslin, \$6.00; half-morocco, \$7.00 net.]

A System of Physiological Therapeutics. A Practical Exposition of the methods, other than Drug-giving, useful in the prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption, etc. In eleven 8vo volumes. American, English, German and French authors. Volume IX. Hydrotherapy, Thermotherapy, Heliotherapy and Phototherapy. By Dr. Wilhelm Winternitz, Professor of Clinical Medicine in the University of Vienna; Director of the General Polyclinic in Vienna; Assisted by Dr. Alois Strasser, Instructor in Clinical Medicine at the University of Vienna, and Dr. B. Buxbaum, Chief Physician of the Hydrotherapeutic Institute in Vienna. And Balneology and Crounotherapy by Dr. E. Heinrich Kisch, Professor in the University of Prague; Physician at Marienbad, Spa. Translated by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1902. [Price for the set complete, \$22.00 net.]

A Manual of Otology. By Gorham Bacon, A. M., M. D., Professor of Otology in Cornell University Medical College, New York. With an introductory Chapter by Clarence J. Blake, M. D., Professor of Otology in Harvard Medical School, Boston. New (3d) edition. In one 12mo volume of 437 pages, with 120 engravings and 7 plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co., Publishers. [Price, cloth, \$2.25 net.]

LITERARY NOTES.

POISONS and Antidotes is the title of a useful card, lately issued by the Maltine Company, containing a list of the principal poisons, printed in color. Following each poisonous drug or substance is a group of most available and certain antidotes. It will serve as a reminder in emergencies, and should find a place on the office wall. It will be furnished on application to the publishers.

THE Gleason Sanitarium, at Elmira, having reached the half-century time point, has issued a handsome brochure, which it

has named a Fiftieth Year Anniversary Greeting. It contains some well-executed half-tone engravings and interesting text contributed from various sources. Dr. John C. Fisher continues his service as resident physician, which guarantees a safe and scientific medical administration.

MESSRS. WILLIAM WOOD & COMPANY, medical publishers of New York, have printed a new catalogue of their medical works that is illustrated by portraits of the principal authors. It is printed on highly finished book paper and is one of the handsomest medical catalogues that has yet been issued. It bespeaks the enterprise of this thriving house.

The Southern California Practitioner, which has been seventeen years in existence, presents a most flourishing appearance and is one of our exchanges that possesses great value. The June issue contains a symposium on tuberculosis that will be appreciated by every student of the subject. Dr. Walter Lindley, the editor, is to be congratulated upon the excellent quality of his magazine.

American Gynecology is the name of a new journal, which is announced to begin publication in July. It will be devoted to gynecology, abdominal surgery and obstetrics. It will be owned and controlled by a stock company consisting solely of members of the medical profession interested in its special field. Its editorial management is vested in a board made up as follows: J. Wesley Bovee, of Washington, D. C.; Charles Jewett, of New York; Charles P. Noble, of Philadelphia; Reuben Peterson, of Ann Arbor, Mich.; and J. Whitridge Williams, of Baltimore. Mr. E. W. Reynolds will be the business manager. The office of publication will be No. 1 Madison Avenue, New York.

POLK'S DIRECTORY FOR 1902 has been issued. This is the seventh edition of this valuable work and contains 3,008 pages. It is one of the most valuable directories yet published and should find its way into the offices not only of physicians, but into every business house that has dealings with the medical profession. This edition is constructed on similar lines to its predecessors, but is very much enlarged and amplified, thus increasing its value though its price remains the same as heretofore—\$10.00. Address R. L. Polk & Co., Detroit, Mich.

FRACTURES of the surgical neck of the humerus is the subject of Chart No. 8, issued by Battle & Co., of St. Louis. It gives in well drawn lines and striking colors the details of this quite common injury, and becomes a helpful reminder to the surgeon. These charts deserve preservation in album form.

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